

香港中文大學研究院教育學部
THE CHINESE UNIVERSITY OF HONG KONG
GRADUATE SCHOOL - DIVISION OF EDUCATION

哲學碩士論文

Master of Philosophy Thesis

論文題目 Thesis Title	Helping Student Teachers to Reflect - A Case Study
撰作語言 Language Used	英文 English
研究生姓名 Name of Student	楊思賢 Yeung Sze Yin, Shirley
專修範圍 Specialization	課程設計與發展 Curriculum Planning and Development

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論文通過日期

Date of Approval

August 21, 1996

Helping Student Teachers to Reflect
-- A Case Study

A Thesis

Submitted to the Graduate School - Graduate Division of Education
of the Chinese University of Hong Kong
in Partial Fulfillment of the Requirements
For the Degree of Master of Philosophy



by

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29 June 1996



ABSTRACT

The conventional approach to teacher education has been criticised in recent decades. During the 1980s the concepts of reflection and reflective teaching became quite popular among teacher educators and researchers in the field of teacher education. This case study, which was carried out in 1992 in one of the four Colleges of Education in Hong Kong, aimed at evaluating how a teacher education programme (namely the PTP) helped a team of six student teachers to reflect on their own teaching and performance. Particular attention was paid to study how student teachers with individual differences in beliefs, attitudes and emotions towards teaching developed their own reflective thinking. The influence of context on the effectiveness of the programme was another main theme of study.

The research methodology of this case study included interviews and record analysis of PTP documents. Records of preconferences and postconferences for clinical supervisions were significant data, too.

Findings in the case study indicates that the six student teachers had developed reflective thinking with different degree after the PTP programme. In one way or another the PTP helped the student teachers to enlighten their own personal theory in teaching. However, the programme failed in enhancing student teachers' reflective quality to a higher conceptual loci or to a wider reflective perspective. It was found that the quality of the programme acted as an influential factor which inhibited individual student teachers from implementing effectively the programme's reflective propositions.

Regardless of the degree of effectiveness the PTP had accomplished, it was quite a good attempt to help student teachers to learn to be reflective professionally. The researcher suggested theoretical implications and practical recommendations for the field of studies in the future.

ACKNOWLEDGMENT

Writing up this thesis, I owed to the gracious support and help of my supervisors. They were Dr. Lam Chi-chung, Dr. Grace Mak Chiu-ling and Dr. Wong Hin-wah who kindly guide me with professional advice. I have to present special thanks to Dr. Lam who had helped me through all those critical moments.

I would like to say a word of thanks to the dear six student teachers, Kin, Jenny, Wong, Yee, Yetta and Ling. Without their earnest assistance, the study could not be carried out successfully.

I should thank two good colleagues and friends of mine, Mr. Lau Chun-kwok and Mr. Yeung Ka-wah who gave useful advice and insights for my study.

The last but not least in importance, I am grateful to my dearest mother, husband, sister, brother, daughter and baby who stand by me throughout these years. I would like to express my special love and gratitude to my mother who takes care of my daughter and baby for me in these four years of study. Thanks so much my husband who is always a strong backup of my struggle through life. Let me thank once more my lovely daughter, Kiu Yan, who has supported me for four years. And to my new-born baby, for her warm accompanying in the last year of study.

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CHAPTER ONE

INTRODUCTION

I. BACKGROUND OF THE STUDY

"What does being a good teacher mean? How does teacher education contribute to the development of good teachers? Surprisingly, these questions are not always central to the design of programs to prepare teachers"(Valli, 1992, p.xi). It is certainly true that the current teacher education curriculum is so entrenched in tradition that conflicting purposes and expectations have been concealed.

The traditional approach to teacher preparation has been criticized by various teacher educators as being technical, fragmented, and shallow (Barnes, 1987; Lanier & Little, 1986; Tom, 1986). Such traditional teacher education programmes emphasize on development of professional knowledge and training of teaching skills. These two components are achieved separately with the former through coursework and the latter through teaching practice in schools. However, this traditional notion of teacher education practice is increasingly challenged. This may be due to the fact that such kind of practice seems to have failed to develop student teachers' abilities to integrate theory and practice. As Zeichner and Liston (1990a) assent,

There is substantial evidence that a great deal of what prospective teachers learn during the clinical portions of their teacher education programs is miseducative in nature and often in conflict with the intentions of teacher educators. (p.235)

In an effort to overcome inadequacies of learning in traditional teacher education, more and more teacher educators are paying attention in

developing students' ability to reflect critically through *Reflective Teaching*. The original ideas of the issue of reflective teaching has to be traced back to Dewey (1933).

This has emerged as a new and hot research issue in teacher education. One consequence of this phenomenon is that teacher education efforts instilling reflective practices such as 'action research', 'reflective teaching', 'reflective practitioner', 'reflection-in-action', 'teacher as researcher', 'research-based' or 'inquiry-oriented teacher education' have become fashionable in the United States and Canada (for example, Bolin, 1988; Carr & Kemmis, 1986; Elliot, 1985; Ross, 1989; Schon, 1983; Zeichner, 1991;). In Hong Kong, the study of the issue has just been started by some teacher educators (for example, Siu, 1992).

What is the reason behind the emergence of reflective teacher education? One of these reasons is a change in conceptions towards teacher education. In recent years the conviction that 'Technical Rationality' or 'Competency-Based Teacher Education' is the most appropriate model for preparing teachers has broken down. The 'Process/Product' research has failed to bring to light significant findings to contribute to the preparation of teachers (Doyle, 1990). Perhaps as a consequence of this, Dewey's notion of reflective practice (Dewey, 1916) and Schon's concept of reflective practitioner (1983) which emphasizes *artistry and context-specificity* seem to have gained increasing appeal.

Effective teachers (and future teachers) should be empowered to be active, thoughtful and responsible educational decision-makers. "Renewed concern about teacher empowerment and professionalization has also stimulated interest in reflective teacher education" (Valli, 1992, p.xiv). Prospective teachers are expected to be autonomous and self-directed professionals rather than mere executors of curriculum designed by others.

Professional teachers have social responsibility and should be prepared to engage in dialogue about the goals of education, to reflect in and on action.

This is the background to the recent convergence of interest in teacher thinking and reflectivity by scholars and teacher educators.

The researcher in this study is a teacher educator who, through close contact and frequent informal communication with student teachers, identified problems in the present system of preservice teacher training and was prompted to study ways and means of improving the system. An empathic and widespread feeling the researcher came across among student teachers in the College of Education at which she served was disappointment with the traditional training strategies and principles. In this climate, it appeared that reflective teaching might bring new life to the training of prospective teachers.

This is the background to the choice of reflective teaching as a research area. The study was carried out in 1992 in one of the four Colleges of Education in Hong Kong. At that time the College had implemented a teacher education programme which aimed at helping student teachers to reflect on their own training and performance. This research studied the extent to which the programme was successful in accomplishing its objectives. It should be noted that by the completion of this study the College had, together with the other colleges of education, merged to become the Hong Kong Institute of Education.

II. AIMS OF THE STUDY

To accomplish the purposes of the study mentioned in the above section, more precise aims are listed to guide the ongoing design of the research, these are :

1. To evaluate the extent to which the programme attains its objectives;
i.e. to see how student teachers who hold different beliefs, attitudes and emotions towards teaching:
 - (a) show interest in reflecting on their teaching;
 - (b) develop reflective ability;
 - (c) grow in self-understanding and awareness; and
 - (d) develop a personal theory towards teaching and learning.
2. To understand the extent to which context and other factors act on the consequence and actual effect of the programme;
i.e. to find out the factors and forces, if any, that influence individual student teachers to implement the programme's reflective propositions; they might be:
 - (a) Input such as program strategies, procedural designs;
 - (b) Context such as design of the programme, informal/formal power structures;
 - (c) Student teachers' adverse beliefs, internal impetus or interest; and
 - (d) Other factors and forces.

III. SIGNIFICANCE OF THE STUDY

It is undoubtedly true that teacher education plays an important role in enhancing the quality of education. However, teacher training has long been criticized as a practice in deskilling professional teachers (e.g., Pinar, 1989). Many claim that teachers trained in programmes heavily oriented towards technique end up being bound by routine. Publications (e.g., Clark, 1986) stress that mechanical performance of acts is characteristic of teacher behaviour.

Educators studying psychology of teacher training advocate that "learning to teach" should be a different matter (Sutherland, 1985). The idea of reflective teaching is a newly formulated theory that most teacher trainers claim to be of great value. During the 1980s when there was a call for professionalization of teaching and teacher education, the concepts of reflective thinking and reflective teaching became popular. Lots of researches and programmes have been carried out for the purpose.

Teacher education in Hong Kong, especially in preservice teacher education, also responded to this call for changes by initiating radical innovations in recent years. Teacher training at both the sub-degree and post-graduate level, was already flourishing and there were many attempts to improve its quality. The idea of reflective teaching in preservice teacher training began to attract the attention of teacher educators, their interest being stimulated to a large extent by the Education Commission Report No.5 (Education Commission, 1992). An increasing number of teacher education programmes were designed on the principles of reflective teaching (e.g., B.Ed. programme of CUHK). It was in this context that the College was one of the first institutions to propose a programme to promote reflective thinking in prospective teachers.

This case study attempts to evaluate the effectiveness of this significant step. Hopefully, the results would help to confirm, challenge or extend the theory of reflective teaching. These results would also enable the researcher to find out the feasibility of reflective teaching in particular context. And, with the findings, the researcher would wish to study if this reflective trial has any significance for preservice teacher development in Hong Kong. Finally, the findings would be most meaningful as a contribution to the curriculum design for the newly established Hong Kong Institute of Education.

This is one of the very few attempts to study reflective teaching in teacher education, so the researcher speculates that this research is of great significance.

IV. DEFINITION OF TERMS

HELPING...TO REFLECT

According to the paradigm of reflective teacher education, student teachers should first be able to inquire into teaching and think critically about their work. The most important theme for this framework is to “foster the reflective capacities of observation, analysis, interpretation, and decision making”(Doyle, 1990, p.6). If analyzed by the criteria of various research paradigms, it is a qualitatively oriented approach that aims at developing or shaping teacher behaviour. Here, the term “helping” is, therefore, preferable to “training” (a concept adopted by most traditional teacher preparation theory, practice and researches.). The focus of training is on “knowing how” rather than “knowing that” (Robertson, 1987, p.16). Sometimes, training bears quite a technical meaning since it carries the connotation of “drilling” certain practices and discipline.

STUDENT TEACHERS

The term refers to students who learn to teach in a teaching education institution. They are different from experienced teachers and beginning teachers. For this research, student teachers are those one who receive preservice teacher education in a College of Education in Hong Kong after completing their secondary education. After two years' training, they would become teachers in primary or lower secondary schools.

CHAPTER TWO

REVIEW OF LITERATURE

I. TEACHER EDUCATION

There are three consecutive phases in teacher education : preservice, induction and inservice.

The nature of teacher education is strongly dependent on the level of economic development, the social context, the local culture and the local history. As a result, there is great diversity in teacher education in the contemporary world -- "from no specific preparation at all to sophisticated university education" (Landsheere, 1987, p.77).

Teacher education curriculum should normally comprise general education, specific subject mastery, psychology, educational theory and practice (Landsheere, 1987). The emphasis is mainly on the good command of instructional methods and techniques.

In the 1980s, there were plenty of researches on teaching and teacher preparation and a number of new conceptions of teaching with significant implications for teacher education have been developed. Dunkin (1987, p.647-649) summarizes some of the dominant alternative conceptions as follows :

1. The Expert-Novice Conception

Teacher education based on this conception is to provide a detailed description and analysis of the identifiable skills of experts as distinct from novices. Provision of these skills and 'coaching' is thereafter essential for training novice teachers.

2. Subject Matter Knowledge Conception

This conception focuses attention on subject matter knowledge. Disciplinary knowledge and the way to transform this knowledge to pedagogical knowledge is essential for training prospective teacher.

3. Organizational Model Conception

This conception leads to more collaborative relationships among universities, teachers, school boards and government for the planning of teacher education.

4. Reflective Practice / Teaching as Inquiry Conception

This conception is discussed in many recent researches. Here, teaching is viewed as a reflective dialogue among teacher, students, subject matter and context. Teaching is conceptualized as a process of inquiry in which teachers' knowing in action is continually constructed and reconstructed in teaching practice.

Besides Dunkin's work, there are several other attempts made to distinguish conceptual orientations or paradigms of teacher preparation. These typologies are generally developed for the purpose of illuminating the implicitly conflicting conceptions of good teaching.

Zeichner's contribution towards developing these typologies is most remarkable. Zeichner (1983) identifies four alternative paradigms of teacher education: *the behavioristic paradigm, the personalistic paradigm, the traditional-craft paradigm and the inquiry-oriented paradigm*. In the *behavioristic paradigm*, good teachers are those who carry out the prespecified competencies and principles of effective teaching. The *personalistic paradigm* equates good teaching with psychological maturity

and personal growth. Good teaching in the *traditional-craft paradigm* results from assimilating the implicit cultural knowledge of teachers. In Zeichner prefers *inquiry-oriented paradigm*, good teachers skillfully and reflectively act upon ethical, political, as well as pedagogical issues involved in their everyday practice.

Doyle (1990) identifies five themes which determine the direction and matter of teacher education: *the good employee, the junior professor, the fully functioning person, the innovator, and the reflective professional*. These themes roughly correspond to Zeichner's craft, academic, personalistic, behavioristic and inquiry-oriented categories and seem to be partially determined by the different interest groups which advocate the various themes.

These clarifications provide a perspective on debates about purposes and goals in teacher education. They also illustrate diverse decisions made about content, time allocations, pedagogical practices, and assessment in teacher education. Moreover, demands and expectations for research can vary across these frameworks. Thus, a change in approach often results in a change in the perceived relationship between research and teacher education.

In practice, as connotation of teacher education changes, so does the paradigm or approach that underlines.

For once teacher educators held a narrow definition of teacher preparation. It was viewed as effort concerned with conditioning or indoctrinating teachers and teacher training was seen as more or less 'vocational' in nature. Then came a trend which advocated the notion that teacher training should be in the form of professional preparation. Zahoric (1986) urges that one goal of teacher preparation must be to help teachers become more skillful and thoughtful about their work. Medley (1984) expresses the thought that, "teachers fail not because they are ignorant" but

because "they cannot apply what they know" (p.81). Educators began to call for methods for bridging the gap between instruction in education and classroom practice.

This brought forth a period when research and practice of teacher education were largely dominated by the theme of quality control. Teacher educators searched for ways to guarantee the effectiveness of teacher training program. Competency-based teacher education (CBTE) was one of the most appealing reactions. The basic concepts of Competency-based teacher education (CBTE) were simple and straightforward (Houston, 1990, p.86):

1. Programme requirements are derived from, and based on, the practice of effective teachers;
2. Requirements are stated as competencies;
3. Instruction and assessment are specifically related to competencies; and
4. Learner progress is determined by demonstration of competencies.

The advantages of this approach are : clarity of objectives, functional learning, modular individualized instruction and objective evaluation. However, this approach has been criticised for being 'mechanistic'. Rather than setting free teachers' minds to question, CBTE promotes a technical mindset for student teachers.

The development of CBTE has generally followed a process-product paradigm. According to this paradigm, teaching effectiveness must relate measures of classroom performance (processes) to objective measures of outcomes (products). It adopts a scientific approach where teaching is perceived as a craft in which the skills a teacher needs could be identified . Obviously, the behaviourist influence is significant for the approach.

Nevertheless, over the past decade, reaction against this technical view of teaching and teacher education has grown (Doyle, 1978; Shulman, 1986). It has been argued that the essential role of teachers as owners of their knowledge and their destiny should be respected for granted of professionalization of teaching.

As a result, a highly personalistic view of teaching and teacher education has arose. Teaching practice is seen as artistic and creative. Teachers are encouraged to rely on their own personal understanding of a situation, their values and their own purposes to make educational decisions. The emphasis, therefore, is on processes that stimulate "personal reflection" (Schon, 1983; Zeichner, 1987), and teacher educators began to encourage reflective teaching practices in teacher education programs. There is a continuing debate on this issue.

II. REFLECTIVE TEACHING

John Dewey (1933) is the first to advocate this new wave of thinking. His notion of "routine action" versus "reflective action" is very challenging. While routine action is guided primarily by tradition, external authority and circumstance, reflective action involves a willingness to engage in constant self-appraisal and development. He suggests that good habits of thought are best developed by providing situations that initiate and provoke reflective action. Dewey further proposes that "a reflective teacher" must possess three characteristics: *Openmindedness*, *Responsibility* and *Wholeheartedness*. He implies a desire to develop in student teachers those "orientations" (the three characteristics) which lead to reflective action ; Dewey's perception of the three characteristics could be interpreted as follows:

Openmindedness is an attitude defined as "freedom from prejudice, partisanship, and such other habits as close the mind and make it unwilling to consider new problems and entertain new ideas." (Dewey, 1933, p.30) It is an active desire to consider more sides than one, to accept alternative possibilities and to recognize the possibility of error even in the beliefs which are dearest to us.

Responsibility means a moral trait to "consider the consequences of a projected step; it means to be willing to adopt these consequences when they follow reasonably." (Ibid., p. 32) It implies integrity; that is to say, consistency and harmony in belief.

Wholeheartedness suggests that a reflective teacher should be dedicated, single-minded, energetic and enthusiastic. In Dewey's words, this is an attitude in which someone "throw(s) himself into (some object and cause which anyone is thoroughly interested) heartily, or with a whole heart." (Ibid., p.31)

Dewey(1910) suggests that preservice teachers should be encouraged to become thoughtful and alert students of education. At the heart of his theory is the notion of grounded belief :

Reflection thus implies that something is believed in (or disbelieved in), not on its own direct account, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as ground of belief...(p.8-9)

In Dewey's definition, one must always withhold judgment during the process of inquiry. Alertness, flexibility and curiosity are essential. The method of reflection is a three-step process -- problem definition,

means/ends analysis, and generalization whereas such process is carried out with openmindedness, responsibility and wholeheartedness.

As a consequence of Dewey's innovations, the emphasis on training of technical skill in traditional teacher education programs shifted towards this broader context of reflective action. Teacher educators began to be aware that if teacher education was concerned primarily with the growth and development of student teachers in teaching roles, the term 'reflective teaching' should be used to identify the central goal of any teacher education curriculum.

John Dewey's (1933) theory of reflective thinking actually serves as the primary source from which the term "reflective inquiry" has grown. Most definitions of reflection in teaching and teacher education proposed in this century are built upon his original conceptions.

Schon (1983) holds a very similar perspective. He challenges the dominant "technical rationality" in professional (teacher) education. He argues that professional activity has been seen as a process of instrumental problem solving "made rigorous by the application of scientific theory and technique." (p.21) Professionals (teachers and student teachers, for examples) are considered to be experts who possess a body of abstract knowledge which they apply, in a rule-governed way, in their practice. Schon stresses that professional practitioners do not simply apply theories to practice. He claims that any professional activity (teaching, for instance) has a rationality of its own, more like an "artistic performance". He says,

His artistry is evident in his selective management of large amounts of information, his ability to spin out long lines of invention and inference and his capacity to hold several ways of looking at things at once without disrupting the flow of inquiry. (p.19)

Schon proclaims that artistry should be promoted in teaching by encouraging "reflection-in-action" and "reflection-on-action" among teachers. According to his ideas, professional activity is always a reflective process, even if that reflection is not raised to the level of consciousness. It is a constant process of *interpretation, action, reflection and adjustment*. Later, Schon clarifies reflection by the stages of *problem framing, factor naming, interpretation, analysis, synthesis and evaluation*. In Schon's explanations,

after a problem has been initially defined or framed, suggestions for solutions begin to occur to the teacher. When solutions occur to a teacher quickly and automatically, in the midst of classroom interaction; it is called reflection-in-action. On the other hand, reflection-on-action occurs outside classroom interaction and solutions come as a result of more deliberate thinking.

Schon's view of professional artistry has significant implications for teacher educators when designing and developing teacher education curriculum. It is clear that more emphasis should be placed on the 'process' of training rather than the acquisition of technical skills and knowledge.

Kenneth M. Zeichner(1983) is another famous figure who advocates reflection as an essential spirit in teacher education programs. His four alternative paradigms classify teacher education design as *behavioristic, personalistic, traditional-craft and inquiry-oriented*. Zeichner says that the last model (inquiry-oriented) should be a conscious choice in order to prepare 'reflective practitioners' through teacher training programs. It is quite obvious that Zeichner has an intention to modernize teacher education program into *transforming the Apprentice through the Dialectic*.

Zeichner (1987) interprets the goal of reflective teaching as enabling student teachers to develop the pedagogical "habits and skills" necessary for

self-directed growth. Underlying the goal is a metaphor of *liberation*. By liberation Zeichner means that "Knowledge" taught to student teachers and the "Knowledge" they get in the school classroom is 'value-governed selection' from a large universe of possibilities. Learning is greater and deeper when teachers are encouraged to exercise their judgment about the content and processes of their work and to give some direction to the shape of schools as educational environments.

In brief, Zeichner emphasizes that reflective teaching is the preparation of teachers who are both willing and able to reflect on the origins, purposes and consequences of their actions, as well as on the material and ideological constraints and encouragement embedded in the classroom, school and societal contexts in which they work.

Some educators relate constructivism to teachers' reflection. Glickman (1985) has stressed that teachers must be viewed as changing adults. These adults vary in their constructions of teaching and learning. In his view, a teacher's understanding of teaching and learning may change over time as a result of the constructions themselves as well as the experiences an individual teacher meets. Fosnot (1989) emphasizes the importance of teacher education programmes as channels for developing teachers who are empowered learners. In Fosnot's words, empowered learners are able to understand processes of human concept construction, both for themselves and for the students in their classrooms.

Stones (1987), in his discussion of "Student (Practice) Teaching", proclaims that the traditional structure of practical teaching experience should be changed. Instead of being trained to be "an apprentice teacher" by a process of instruction, demonstration, and imitation, student teachers "will spend much more time in reflecting upon their teaching, in discussion with others, in planning and in systematic observation of their practice schools" (p.685). According to Stones, this type of school experience will help

student teachers to gain an insight into the nature of teaching in its social and educational context and "to develop pedagogical skills that spring from an understanding of a body of pedagogical theory rather than rule of thumb or ad hoc survival techniques" (p.685).

Cruikshank's idea of "student of teaching" is synonymous with those of Stones and Zeichner's (Cruikshank, 1987). In Cruikshank's words, a student of teaching "reflect on teaching itself and becomes, in practice, thoughtful and wiser teachers" (p.3). A student of teaching would deliberate on his teaching, instead of acting strictly according to tradition, techniques, rules and authority. In Cruikshank's opinion, teachers who study teaching deliberately can free themselves from being "a slave to chance, irrationality, self-interest, and superstition" but develop "life-long assurance that they know what they are doing, why they are doing it, and what will happen as a result of what they do" (p.34). Thus, Cruikshank clarifies further that reflective teaching could liberate a teacher from thought and practice that he would otherwise accept unconsciously and unquestioningly.

Although many scholars and educators plump for reflective teaching, it is not altogether clear what reflectiveness looks like in action or if it is something that lives in abstractions but is not recognizable as teacher behaviour. Various teacher educators attempt to operationalizes reflective teaching into observable criteria. Van Manen (1977) identifies three "levels of reflection". At the first level of *technical rationality*, the dominant concern is with the efficient and effective application of educational knowledge for the purposes of attaining ends which are accepted as given. The second level of reflectivity is based upon a conception of practical action whereby the problem is one of explicating and clarifying the assumptions underlying practical affairs and assessing the educational consequences toward which an action leads. The third level, *critical reflection*, incorporates moral and ethical criteria into the discourse about practical action.

Feiman-Nemser (1985) equates different levels or loci for reflection with the content of reflection: *the technological orientation, the academic orientation, the practical orientation, the personal orientation and the critical*. A technological orientation might focus reflection on the most effective or efficient means to achieve particular instructional objectives. The academic orientation would focus reflection on the explicit school curriculum or subject matter; the practical orientation on the problems of teaching; the personal orientation on the reconstruction of the self as teacher; and the critical orientation on the school's role in creating a more just and democratic society. These differences in substantive focus, as Feiman-Nemser concludes, mean that reflection is not so much an orientation as a disposition underlying other legitimate orientations.

Tom's concept of the "arenas of the problematic" (1984) is very similar to that of Van Manen's: *the arena of the problematic*, or that aspect of teaching which is the object of problematic thinking; *the model of inquiry*, or mode of reflection brought to bear on a particular problem, and *the ontological status of education phenomena*, or how real, observable, and law-like one views the components of schooling. Tom views the role of a teacher more as one of "*moral craftsperson*" than as simply "*craftsperson*" or "*technicia*". Hence, a reflective teacher is one who assesses the origins, purposes and consequences of his or her work at all three levels/arenas.

Kitchener and King (1981) establish criteria to rate students' stages of reflectivity. The following is a summary:

Stages 1 and 2

- # Views world as simple
- # Believes knowledge to be absolute
- # Views authorities as the source of all knowledge

Stage 3

- # Acknowledges existence of differences of viewpoints
- # Believes knowledge to be relative
- # Sees varying positions about issues as equally right or equally wrong
- # Uses unsupported personal belief as frequently as "hard" evidence in making decisions
- # Views truth as knowable but not yet known

Stage 4

- # Perceives legitimate differences of viewpoint
- # Develops a beginning ability to interpret evidence
- # Uses unsupported personal belief and evidence in making decisions but is beginning to be able to differentiate between them
- # Believes that knowledge is uncertain in some areas

Stages 5 and 6

- # Views knowledge as contextually based
- # Develops views that an integrated perspective can be evaluated as more or less likely to be true
- # Develops initial ability to integrate evidence into a coherent point of view

Stage 7

- # Exhibits all characteristics listed in Stages 5 and 6
- # Possesses ability to make objective judgments based on reasoning and evidence
- # Is able to modify judgments based on new evidence if necessary

Valli (1992), on the other hand, limits her scope of inquiry to examples which have an explicit commitment to examining teaching as a moral enterprise. Even within this more narrow scope she finds three approaches: *the deliberative, the personalistic and the critical*. In the

deliberative approach, knowledge does not directly guide practice but, rather, indirectly informs it. For the personalistic approach, the primary concern is the teacher himself as a constructor and definer of his own knowledge. The critical approach evolves from the social reconstructionist tradition in which the social and political aspects of teaching are the core task in the reflective preparation of teachers.

Much of these reflective practices have been attempted in the US and Canadian teacher education communities. Based on an historical analysis of educational philosophies and traditions, Zeichner and Liston (1991) have identified four varieties of reflective teaching practice based on their analysis of traditions of reforms in twentieth-century US teacher education, as they put it (p.3),

1. an academic version *that stresses reflection upon 'subject matter and the representation and translation of subject matter knowledge to promote student understanding;*
2. a social efficiency version *that emphasizes the thoughtful application of 'particular teaching strategies' that have been suggested by research on teaching;*
3. a developmentalist version *that prioritizes teaching that is sensitive to students' interests, thinking and patterns of developmental growth;*
4. a social reconstructionist version *that stresses reflection about the social and political context of schooling and the assessment of classroom actions for their ability to contribute toward greater equity, social justice and humane conditions in schooling and society.*

The influential works of teacher educators such as Zeichner and Liston, Schon, van Manen give us some ideas of reflective teaching in various perspectives.

There appear many different conceptualizations of reflection and reflective teaching. Many teacher educators and researchers are working hard to search for more comprehensive conceptions of reflective teaching. Hitherto there has been no agreement being reached nor generally accepted. However, most of them seem to share a common assumption that teachers should reflect with logical, rational, and systematic analyses of their own teaching and the contexts in which the act of teaching occurs.

On a general level, reflection can be defined as a way of thinking about educational matters that involves the ability to make rational choices and to assume responsibility for those choices. Ross (1989) summarizes as follows the elements of the reflective process as conscious or unconscious procedures (p.22):

- 1 Recognizing an educational dilemma;
- 2 Responding to a dilemma;
- 3 Framing and reframing the dilemma;
- 4 Experimenting with the dilemma;
- 5 Discovering the consequences and implications of various solutions;
- 6 Examining the intended and unintended consequences;
- 7 Evaluating the solution;
- 8 Determining whether the consequences are desirable or not.

Similarly, Pollard and Tann (1992) propose a simple explanation to reflective teaching; they say that reflective teaching is applied in "a cyclical or spiraling process" in which teachers continually monitor, evaluate and revise their own practice.

A reflective teacher education program is designed to develop a "reflective practitioner", it requires teaching not only the elements of the reflective process but also other forms of components such as increasing the range and depth of knowledge in each student teachers' appreciation system; development of several attitudes and abilities; and last but not the least important, adequate training of technical skills and knowledge.

III. APPROACHES OF REFLECTIVE TEACHING

Even though Schon, Zeichner, Cruickshank and many others argue that thoughtful teachers who reflect on their practice (on and in action) are more desirable than unthinking teachers, who are ruled primarily by tradition, authority and circumstance, there are still many unanswered questions. Neither Dewey nor Schon have much to say, for example, about what it is that teachers ought to be reflecting about, the kinds of criteria that should come into play during the process of reflection or the degree to which teachers' deliberations should incorporate a critique of the institutional contexts in which they work.

Educators have contributed their efforts to developing reflective teaching. Reflective teaching has thus become a generic term referring to a range of efforts intended to prepare teachers to be more thoughtful. These include the following (Zeichner & Liston, 1987):

- 1 Reflective teaching programs
- 2 Action researches
- 3 Collaborative process of reflection
- 4 Method courses
- 5 Imaginative literature
- 6 Observational systems
- 7 Case methods

- 8 Writing
- 9 Protocols
- 10 Journals and diaries
- 11 Problem-solving based simulation
- 12 Ethnographic researches
- 13 Developmental approach of supervision

These efforts intended to prepare teachers for reflective teaching differ with regard to purposes and means. Some advocates hope to engage teachers in becoming more thoughtful about the educational-cultural context, with the assumption that teachers are or should be agents of social change. Others wish to focus teachers' thoughts on the act of teaching, in the hope that, through inspection, introspection and analysis, teaching can be enhanced. Furthermore, some advocates are cautious about putting forth exact strategies by way of enhancing teacher reflection; others are willing to be more specific (Zeichner, 1987).

Zeichner's contribution (Ibid.) to this field of inquiry seems most significant and outstanding. He presents the needs to focus reflective teaching upon developing *Personal Theory* most clearly. He says that a "Reflexive Curriculum" (teacher education curriculum) should :

1. make provisions for the self-determined needs and concerns of student teachers as well as the creation of personal meaning by students;
2. besides theoretical knowledge, draw upon the practical knowledge of student teachers;
3. encourage student teachers to actively respond to and criticize the concepts that underline the program and the frameworks;

4. be implemented in an "inquiry-oriented" rather than "traditional" milieu in relation to the authority relationships which exist between student teachers and teacher educators;
5. be implemented in a "self-renewing" milieu. Both student teachers and tutors should continually reexamine its curriculum, organization, pedagogy and authority relationships, and work toward ongoing improvement of the program.

Zeichner reinforces the view that teacher education is a time for continued learning about teaching and schooling and for establishing *pedagogical habits of self-directed growth*, rather than a time merely for the *application and demonstration of previously acquired knowledge and skills*. This seems a revolutionary change of conception of traditional teacher education program which aims at training teachers with an intensively technical "apprenticeship" model.

Reading through the definition of Personal Models of Teaching given by Joyce and Weil (1986), we could easily find out traces of personal components of reflective teaching :

The Personal Models of Teaching" begin from the perspectives of the selfhood of the individual. They attempt to shape education so that we come to understand ourselves better, take responsibility for our education, and learn to reach beyond our current development to become stronger, more sensitive, and more creative in our search for high quality lives. (Ibid., 1986, p.7)

Reflective teaching seeks to reinforce the view that teachers can be *creators* as well as *consumers* of educational knowledge.

Student teachers will have internalized teaching models which they observe before and during their training. This is why many teacher education programmes are "low impact-enterprise" (Zeichner, 1981). Johnson (1988) also agree that teachers' pre-existing views of teaching and learning are so pervasive that unless it is directly challenged any attempt to alter teaching styles is doomed to failure. It is against this background that we need to pay attention to the "Personal Theory" when developing any reflective teacher training programmes.

IV. PERSONAL THEORY

Dewey (1916) makes a distinction between "reflective" and "routine action". His argument is that teachers should move beyond the goal of "technical rationality" and see themselves as a reflective teacher. Dewey's distinction is the basis of that drawn by Schon (1983, 1987). Schon suggests the need to modify teacher training to a model of "reflective practitioner". These highlight crucial debates and intense discussions on alternative approaches and conceptions towards the preparation of reflective teachers .

Divergence exists among efforts and programs for reflective teacher education. Some propose that reflective teaching should be oriented towards engaging student teachers in the processes of reflection; some hold the view that reflective teaching should focus on the substance i.e. the knowledge base that inform reflection. There are still other dimensions within the field of inquiry. Furthermore, various methods are suggested for how reflective teaching might be fostered among student teachers. Microteaching, thinking aloud protocols are two of these examples.

Nevertheless, all efforts are in vain if no keen consideration of "individual differences in learning to reflect" is taken into account (Calderhead, 1992). "They (student teachers) will inevitably learn in diverse

ways and take different meanings from the experiences that are offered to them" (p.142). His idea is that to foster reflective thinking in student teachers, individual differences should be taken into account. He suspects that while some student teachers may lean towards reflective learning, others might want to be informed directly.

Calderhead's viewpoint(1992) is in line with Zeichner et al.(1987) which states that student teachers approach preservice training with different knowledge and perspectives and they, therefore, progress towards reflective teaching in different ways. Zeichner and Grant (1981) have explained clearly that teacher education programmes are a "low-impact enterprise". The programmes have little effect in changing student teachers' previous assumptions established from their pre-training influences. Zeichner et al. (1987) conducted a study on the role of student teaching in teacher development. Their research questions include (p.36) :

1. To what degree did the teaching perspectives of student teachers change during the course of the 15-week semester?
2. To what degree did any initial differences in student teachers' perspectives disappear by the end of the semester?

Findings indicate that teacher education did not result in "a homogenization of teacher perspectives". Student teachers come into the experience with different teaching perspectives, and significant differences among student teachers remain at the end of the semester. Zeichner *et al.* further suggest factors which student teachers experienced before their training. These include the powerful effect of the student teachers' "childhood heritage as a learner" and "the quality of the relationships experienced in educational contexts" (p.25).

This problem may be further complicated by the discrepancy that may occur between a teacher's "espoused theories" about teaching and learning as well as his "theories in action" (Argyris & Schon, 1976). Tabachnick and Zeichner (1984) introduce mature insight into this aspect. In their study of the socialization of preservice teachers, they conclude that teacher education cannot change student teachers but it helps them to clarify and elaborate their own personal perspectives.

A few researches have been initiated to test Zeichner's proposition in reflective preservice teacher training.

Korthagen (1985), after the ALACT reflective secondary teacher education program, directs a research on the learning outcomes of student teachers. The model of reflection used in the program has five phases : (1) *Action*; (2) *Looking back at the action*; (3) *Awareness of essential aspects*; (4) *Creating alternative methods of action*; and (5) *Trial*. Although some student teachers rated the program highly, it was suggested that the program needed to take into account the differences among student teachers. In line with Calderhead's speculation, Korthagen found out that some student teachers liked to be reflective while others wanted to have more external guidance and support. This finding verified Zeichner's conviction.

Parsons-Chatman's research (1990) on the implementation of a constructivist approach to science teaching in secondary preservice science teachers training validated that the "personal disposition" of the student teacher appeared to be one of the strong variables in influencing preservice teachers' acceptance of a constructivist approach.

Johnson(1988) argues that teachers' pre-existing views of teaching and learning are so pervasive that unless directly challenged, any attempt to change their teaching styles is ineffective.

Ely *et al.* (1991, p.122) provides a breakthrough to untying this knot in reflective teaching. They believe that "by recognizing and acknowledging our own myths and prejudices we can more effectively put them in their place..." In Ely's words, greater self-knowledge of the personal theory of teaching and learning could help one to "separate our thoughts and feelings from those of others, to be less judgmental, to appreciate others' experiences and thus to go beyond our own understandings and to develop professionally."

In other words, by engaging student teachers to eliciting their own personal theories, individual student teachers with different "learning orientations" (Korthagen, 1987) and diverse "common sense" (Calderhead, 1987) would be aware of their own interpretive framework. Then, they would be willing and are able to compare and contrast their own framework with those of their peers, and lecturers and with public theories. In this way, individual student teachers could acquire theories of teaching and learning from reflection in their own way and at their own pace. The ultimate result would be the development of individual new insight and professional thinking towards teaching and learning.

Ross, Johnson and Smith (1992), in their introduction of the PROTEACH (a reflective teacher training program) at the University of Florida, demonstrated their view that the reflective teacher should be one who holds a "personal philosophy of teaching" (p.31). They proclaim that to become a reflective teacher, a student teacher should develop an articulated view of teaching and learning by critically examining one's own 'implicit theories' and other people's educational beliefs. Tann (1992) supports this point. She claims that unless teacher educators engage them at a personal level, student teachers cannot make sense of the programme content.

It is against this background that an interest in "personal theory" is growing. Many teacher educators believe that by encouraging students to

formulate and articulate their personal theories they become more aware of their own interpretive frameworks. In this way it may be possible to encourage student teachers to compare their own theories with alternative public theories. This process enables them to examine and test their rationale. All these features can be said to contribute towards becoming a "Reflective Practitioner".

V. RESEARCH ON REFLECTIVE TEACHING IN PRESERVICE TEACHER EDUCATION

In recent years there has been considerable interest in researching into reflective practices (Appendix A). An enormous range of effort has been employed to study the plausibility of implementing reflective teaching in preservice teacher education. The researcher shall present certain pieces of these endeavors in the following section.

Researchers have attempted to use various kinds of methodology and approaches to train reflective student teachers:

McAllister & Neubert (1995) conducted a study with 135 preservice teachers at Towson State University aimed at encouraging reflective thinking in preservice teachers by *peer coaching*.

Bennett (1994) demonstrated from findings of a study that *action research projects* are effective means of promoting reflection to improve teaching practice.

Volkman et al. (1992) investigated the effects of *field-based reflective practice* on preservice teachers' sense of self-efficacy. The results showed the significant positive impact of reflective practice whereby student teachers are helped to become "self-assured" reflectors.

Researches also indicated that keeping *journals, logs and writings* could enhance student teachers' reflectivity (King, 1992; Lerner, 1993; Smith & Pape, 1990;). These researches concluded that the reflective judgment of student teachers could be improved through journal writing. The papers also demonstrated that through the use of journals, the training process in teacher education preparation programs can be better understood.

Studies on *Collaborative Venture* in preservice teacher education (Castle & Giblin, 1992; Dworet, 1992) showed that strong collaboration between student teachers, university supervisors, cooperating teachers and administrators during the teaching practice placement could help student teachers to truly understand effective teaching and a close relationship between course content and what students see and practise would develop.

Mentoring of the preservice teachers by the college supervisors in a clinical experience was recommended as an effective process to promote growth and development of student teachers' problem-solving, decision-making, and questioning skills through reflection (Christensen, 1991).

Evidence also suggests that another reflective approach, *portfolio construction*, is of help in developing classroom management skills, content pedagogy, command of subject matter, student-specific pedagogy, and professional responsibility. Berry (1991) found in his study of three universities that there was strong student support for portfolio development.

Student teaching seminar is a vehicle for encouraging reflective thinking about teaching and learning. During field experience researchers hold discussions to promote reflection on the relationships between educational goals and values, educational goals and actual teaching behavior, and pupil characteristics and teaching strategies. The outcomes are encouraging (Grippin, 1990; Korthagen, 1990).

Besides these, there are still other experiments on such reflective designs as *Impromptu Teaching Model* (Peterson & Peterson, 1985) and *Evaluation of University Supervisors by student teachers* (Russell, 1992; Shaver & Wise, 1989). Findings verified that these measures do help to foster reflection in student teachers.

There are many instances of reflective teaching as a *program*. Utah's "Empowerment" program (Brigham Young University, 1989), Virginia's Five-Year Teacher Education Program (1988), University of Houston College of Education Teacher Education Program (1985), and Social Studies Professional Semester at the State University of New York (1988) are some examples. The research outcomes of these efforts showed positive impact of these practices on students' ability to reflect.

No matter how effective these approaches and programs seem in developing student teachers' reflectivity, the focus of the researches mentioned above could hardly address the issue of individual student teacher's cognition. The "(self-determined) needs and concerns of individual student teachers' has not been studied. Neither do they make provisions for the creation of personal meaning by student teachers. Possible incongruencies and contradictions in students teacher's prerequisite perception have not been investigated in these efforts (Zeichner *et al.*, 1987).

Korthagen and Wubbels (1991) are among those who took care of the needs of student teachers. They presented a report after 10 years of research focusing on a teacher education program that sought to promote reflective teaching. Data from their studies suggested several characteristics that may be considered correlates of reflectivity. Their findings showed that reflective student teachers :

1. have previously been encouraged to structure their own experiences and problems;
2. have strong feelings of personal security and self-efficacy;
3. think that learning should be by investigating and structuring one's own experiences and problems.

Their study certainly confirmed Zeichner's saying that reflective learning is one of 'self-directed' and 'self-determined' growth.

Tomkiewicz (1991) conducted a study that forced all student teachers to confront their self-concepts in each discipline in an interdisciplinary elementary methods course for the purpose of determining the extent to which writing and reflective teaching could change the perspective of individual student teachers on "thinking", "rational", "intuitive" and "decision-making" teachers. Personal factors were confronted but without very vigorous investigation.

There have been inadequate investigation into the significance of the "Personal Theory" in the development of reflective teacher training programs. Wright and Kasten (1992) are two of the researchers who tried to focus reflective training on the "self". They proposed a model of student teacher supervision that focuses on providing new lenses through which student teachers can view and interpret their own perspectives. This supervision model includes: self reflection, reflective supervision, reflecting in journals, reflecting on personal teaching, reflecting on individual action research, and reflecting on personal highlights and concerns of teaching experiences. Project results have yet to be published.

Pugach (1990) successfully conducted a research to explore the potential of "self-study". The report indicates that self-study promises to be a useful means of sensitizing student teachers to self-monitoring as a critical component of reflective teaching. His effort is remarkable but insightful.

CHAPTER THREE

All these efforts have surely contributed to our understanding of reflective teaching but these researches have a common weakness. The following questions concerning individual differences among student teachers have hardly been addressed :

1. What kind of reflective teaching could help individual student teachers to develop a "personal theory"?
2. Is reflective teaching suitable for every student teacher?
If not, how could such "individual differences" be catered for?
3. How can we help student teachers with different beliefs and perceptions towards learning and teaching to develop reflective thinking?

Korthagen might be one among the few who has paid attention to these puzzling questions. He conducted a research on the effects of a reflective preservice teacher education program with Verkuyl (1987) at the Stichting Opleiding Leraren, a teacher's college in the Netherlands. This study questioned whether reflective teaching is equally suitable for all students. As a result, a longitudinal follow-up study was started in which the central research question was : How do individual student teachers develop during their preparation program? Research outcomes confirm that students with different learning orientations developed differently during the course of the program. The effects of the program on different students were pinpointed. This further verified Zeichner's conviction.

Korthagen's study is a valuable trial to answer the questions posed in the above section. However, further validation and exploration are necessary to shed more light on the significance of reflective teaching in teacher education. It is hoped that this research could also contribute some insight to this enquiry.

CHAPTER THREE

THE CASE STUDY

I. PRESERVICE TEACHER EDUCATION IN HONG KONG (COLLEGE OF EDUCATION)

Teacher education in Hong Kong has a 140-year tradition. It is divided into two main categories: the non-graduate teacher education programmes offered by the Colleges of Education and the degree or post-graduate teacher education programmes offered by the two universities of the territory. For a fairly long period of time degree holders took one year to be trained as graduate teachers in the Faculty of Education of either the University of Hong Kong, or the Chinese University of Hong Kong. Non-graduate teachers took either a three-year post-Hong Kong Certificate of Education Examination course or a two-year post-Hong Kong Certificate of Education Examination course leading to a Teacher's Certificate awarded by one of the four Colleges of Education.

In January 1991 the Education Commission began a study on teacher education and the results were published in the Education Commission Report No.5 (ECR 5) in June 1992. This was a response to higher public expectation for upgrading teacher education in an era of rapid change. In accordance with the recommendation of ECR 5, the four Colleges of Education and the Institute of Language in Education merged to form the Hong Kong Institute of Education on 1 September 1994. This tertiary institute continued to develop Certificate in Education programmes and planned to offer degree programmes in 1997-98.

With reference to the scope and target for this research, the researcher would confine the study of preservice teacher education to the former Colleges of Education in Hong Kong.

The four Colleges of Education, established by the Hong Kong Government, were responsible for the provision of preservice teaching training courses for the primary and lower-secondary schools in Hong Kong (Hong Kong Government, 1993). The four Colleges were the Northcote College of Education, Grantham College of Education, Sir Robert Black College of Education and the Hong Kong Technical Teachers' College. These colleges were established in 1939, 1951, 1960 and 1974 respectively. Up till the commencement of this research, the Colleges were preparing "Certificated Masters/Mistresses" i.e. they offered Certificate teacher education programmes only.

The four Colleges of Education offered a variety of full-time and part-time courses. Full-time courses were developed chiefly for preservice teacher training whereas part-time courses were for inservice teachers. Full-time preservice teacher training courses included Two-year and Three-year courses (English and Chinese stream). Full-time courses aimed at training qualified teachers who would be capable of teaching general subjects in primary schools and two elective subjects in secondary schools (up to secondary three level).

Apart from the Hong Kong Technical Teachers' College which offered syllabus components of technical, art and design, and commercial teacher training, the other three Colleges offered similar curriculum of preservice teacher education.

The Colleges of Education shared the same course structure which consisted of four domains of study : professional studies, general studies, elective studies and teaching practice. A brief summary of the course structure of the three Colleges is given below:

1.. Core Curriculum/ Professional Studies

This was a compulsory programme which every student followed. It consisted of Professional Studies of Education, Educational Technology and General Methodology. General Studies such as Chinese and English Language Skills, Complementary Studies such as First Aids, Needlework, etc. were also included.

Courses in Education, such as Psychology of Children, Learning theory, etc., were designed to provide a basic introduction to the theory in education. "They are intended to be foundation courses upon which professional attitudes and competence can be built." (SRBCE, 1993-1995, para.2.4)

The programme of General Methodology was "designed to enable the student teachers to perform the various roles of a school teacher effectively" (Ibid., para.2.4). Hence, it focused on the transmission of educational methodology essential to increase the competence of teachers. These included methods of managing classroom discipline, modes of instructional delivery, basic teaching skills, lesson planning and educational evaluation, etc.

Educational technology aimed at providing course content of communication theory, management and selection of instructional media, the use of computer in education, etc. These are skills essential to the work of a regular teacher.

The courses on Chinese and English Language skills aimed at improving the students' proficiency "in the speaking, aural comprehension, reading and writing of Chinese and English" (para.2.5).

2. Elective Subjects

Student had to take two elective subjects chosen from Chinese, English, Chinese History, Economic and Public Affairs, Physical Education, Music, Home Economics, Art and Design, etc.

Courses of elective subjects were designed to assist student teachers to acquire "subject knowledge" and techniques for teaching the various electives at primary and lower secondary levels in Hong Kong. For example, there were two basic components for English elective subject -- ELT methodology and English Studies; whereas Language studies, Literature appreciation and modern approaches to the teaching of Chinese Language were studied for Chinese elective.

3. Teaching Practice

Within the two or three years of studies, student teachers had the chance to practise teaching in primary and lower secondary schools.

The Colleges' course of study was organized in units. The basic order of organization for the course units followed such sequence:

Professional Studies --> Elective studies -->

General studies --> Teaching Practice

To be qualified for the award of a Teacher's Certificate, a student teacher had to meet certain requirements. These included "General suitability", "Attendance" and "Course work" (SRBCE, 1993-95, para.2.15). This implied that a student teacher should show good conduct, personality, attitudes as well as satisfactory attendance. Moreover, s/he should achieve satisfactory requirements in course work. Course work included minimum requirements from compulsory units and the four areas of study

(Professional Studies, Elective Studies, Practical Teaching and General Studies). For full-time two year course, students were required to complete not fewer than a total of 130 units (for students whose electives were academic subjects) or at least 135 units (for students whose elective included a cultural subject) in the two years of study.

Preliminary analysis of the curriculum organization of the Colleges of Education in Hong Kong reviewed that the emphasis placed on training of preservice teachers was rather "scientific"-- confirming Chan's(1992) criticism of teacher education in Hong Kong. This stress on technical professional studies could hardly attain Zeichner's aim to "transform the Apprentice through Dialectics" (1987). The objectives of this kind of teacher education is to transmit traditional cultural knowledge and routinized skills to prospective teachers. Obviously, it could be classified under Zeichner's "Traditional-craft" approach in his four paradigms of teacher education (Zeichner, 1983).

Furthermore, one could easily identify from the course design of the Colleges that the practice of preservice teacher education in Hong Kong consisted firstly of theory and methodology of education, followed by practical application of vague and broad theories. Apparently, theories and methodologies were taught as discreet pieces of knowledge. They were learnt without a context from which relevance could be related. The inadequacy of such a practice was validated by a survey of Chu (1985) on graduates of the three Colleges of Education. Most beginning teachers complained that the curriculum in the Colleges was hardly sufficient for their teaching; half of the respondents in the survey proclaimed that they were not competent enough for their teaching profession.

"Teaching was considered as an art, not a science"(Chan, 1992, p.38). Chan's idea is synonymous with those of Dewey's who stated that the conception of 'reflective action' should substitute 'routine action'. Zeichner's

II. THE CASE

A PRESERVICE TEACHER EDUCATION PROGRAM IN THE COLLEGE OF EDUCATION IN INDIA

advocating of "liberation" of teachers' thought and action would be the most possible solution. With self-directed growth and decision, individual teachers could become independent artists in teaching.

Improvement was gradual. In view of the constant complaints from students and lecturers, the College of Education under study tried to change the emphasis on "technical rationality" of the traditional preservice teacher education. A programme, namely Primary Training Programme, was improved for such a purpose. Since the designers, who were lecturers of the College, understood that the ability to integrate theoretical knowledge with practice only came about with observation, analysis, experimentation and evaluation, they included the component of reflection in planning this programme. The programme became the target case for study in this research.

II. THE CASE :

A PRESERVICE TEACHER EDUCATION PROGRAM IN A COLLEGE OF EDUCATION IN HONG KONG

The target case for study in this research was a preservice teacher education program in a College of Education.

The College of Education had a Primary Training Unit (PTU) in charge of the training of preservice teachers for primary education. In 1994 the PTU designed a Primary Training Program (PTP) for student teachers after the completion of the units of study for the three domains, i.e. professional studies, elective studies, general studies. The PTP actually formed the fourth domain of the course which was named 'teaching practice'. A brief account of these components are discussed in the following sections.

The program invited participation from almost half of the College lecturers. The human and material resources, finance, time and effort poured into this program was huge but the College placed a great deal of emphasis on the program for its meaningful contribution to primary preservice teacher training in Hong Kong. In actual fact, the program was unique among the programmes offered by Colleges of Education.

In 1994, the designers of the Primary Training Programme (PTP, in short), who were also lecturers in the College, embraced elements of reflective teaching. These designers noticed the significant development in teacher education in recent decades and decided to try an effort to improve the quality of teaching of the College. The basic aim of the programme was to foster the self-directed growth of student teachers. The rationale behind the Primary Training Program was that learning for both pupils and student teachers was greater and deeper when teachers were encouraged to exercise

their judgment about the content and processes of their work. In principle, the programme was inquiry-oriented, seeking to help student teachers to develop habits and skills of self-awareness, self-renewal and qualities of reflectiveness. It focused much on empowering every individual student teacher to reflect on his personal decision as well as personal theory.

The objective of the program was to prepare student teachers for primary school teaching. The focus of work was mainly on field-based practicum experience. The programme extended from six to seven weeks. The programme consisted of the following school-based components:

1. Observation and Analysis of Lesson Demonstration
2. Peer Observation
3. Self-evaluation
4. Clinical Supervision

The PTU organised student teachers into groups, each under a team leader and the whole team was expected to work as a unit participating together in all field-based activities.

OBSERVATION AND ANALYSIS OF LESSON DEMONSTRATION

Right before the commencement of teaching practice, Lessons for Analysis sessions were prepared by College lecturers with voluntary beginning teachers. The purpose of this practice was to guide student teachers to a systematic and analytical study of a lesson. The designer claimed that such an exercise would be valuable to student teachers in the self-evaluation of their respective performance in teaching practice.

Lessons of various primary subjects were conducted by prospective teachers invited by lecturers. The student teachers were requested to observe all the lessons for analysis sessions and to attend the discussion sessions as

scheduled. An observation report should be completed during the observation lesson which helped them to analyse the lesson according to the following guidelines :

1. Points considered good and worth following in subsequent teaching.
2. Weak points to be avoided or improved.
3. Other suggestions, including alternative approaches.

(for details, please refer to Appendix B)

PEER OBSERVATION

Student teachers were encouraged to practise Peer Classroom Observation exercise during teaching practice. They were encouraged to work out a reasonable and practicable observation schedule and it was suggested that they should observe peers about once per week. The objectives of this PTP component were as follows :

1. To facilitate peer learning and support through focused observation and follow-up discussion of different aspects of teaching/learning situations in the classroom;
2. To promote student teachers' self-awareness of the complicated process of teaching and learning;
3. To increase student teachers' self-understanding of their own strengths/weaknesses in teaching through observation and post-observation self-evaluation.

The student teachers were encouraged to try out observation of the following five aspects of teaching and learning (Appendix C):

1. Teaching and Learning Activities ~ 'Peer Observation Form(A)'
2. Teaching Aids ~ 'Peer Observation Form (B)'
3. Classroom Management ~ 'Peer Observation Form (C)'
4. Teacher's Personal Qualities ~ 'Peer Observation Form (D)'
5. Pupils' Participation ~ 'Peer Observation Form (E)'

PTP advised student teachers to use the five different observation forms.(Form A to E) It was hoped that this "will help students focus on different aspects.. during lesson observation." Strategies useful for peer observation such as data-collection , comparison and contrast, judgments and analysis... were recommended to student teachers.

SELF-EVALUATION

Student teachers were also advised to attempt self-evaluation during teaching practice in order to "help you (student teachers) analyze and evaluate the strengths and weaknesses of your own teaching" (Appendix D: 'Teaching Practice Self-evaluation Form'). It was expected through this practice, student teachers would increase their self-awareness, be more independent and become more capable and willing to improve their own teaching.

Once again a "Self-evaluation Form" was designed to facilitate student teachers' implementation of this practice. The questions were devised to stimulate student teachers' reflection upon their own teaching performance :

1. Do you think the lesson was successful? Why?
2. What, if anything, would you change about the lesson? Why?
3. What, if any, unexpected learning outcomes did you discover from this lesson? What would you do in the following lessons?

4. Can you think of another way you might have taught this lesson?
5. What did you find most interesting and rewarding in this lesson?
What would you do in the following lessons?
6. What did you find most difficult and challenging in this lesson?
What would you do in the following lessons?

CLINICAL SUPERVISION

In the part of the PTP Program which defined the essence of Teaching Practice Supervision, encouraged post-conference and pre-conference for all supervision. Lecturers were given flexibility and autonomy to conduct this supervision.

The designers of PTP proposed this practicum exercise because they were aware of a current trend in teaching practice supervision. Clinical supervision aimed at “developing in beginners and in inexperienced teachers a conviction and a value: that teaching, as an intellectual and social act, is subject to intellectual analysis” (Mosher & Purpel, 1972, p.79).

In clinical supervision, the teachers (student teachers) usually play a “central role” in the process in that they set the agenda for what is to be the focus of observation(p. 81). Student teachers are asked to reflect upon their own classroom teaching and demonstrate their analytical skills. On the supervision day, student teachers are asked to set the agenda for observation and discussion, formulate the questions, and conduct the conference in place of the supervisor. The agenda may include demonstrated strengths and weaknesses, critical incidents, recurring patterns, or any other facet of instruction the students identify. Only after the students present their analysis does the supervisor take the lead once again. Student teachers with adequate ability and skills of self-analysis could demonstrate this task quite successfully.

For PTP, a similar clinical supervision was held by the tutor (the researcher) for every student teacher. During the pre-conference held before the clinical supervision, each student teacher would be asked the following questions:

- What do you think would be the strong points of this lesson?
- What problems or weaknesses, do you expect about this lesson?

In this way, each student teacher was thus stimulated to set the agenda for observation and discussion. Then the researcher would begin observation of the lesson taught by the student teacher. This was then followed by a postconference. During the post-conference, the student teacher would be asked the following questions:

- What do you think about about this lesson?
- What is (are) the strongest point for the lesson?
- What is (are) the weakest point for the lesson?

In this way, each student teacher was asked to reflect upon his own classroom teaching as well as to demonstrate his analytical skills.

In practice, many lecturers in the College took on the clinical approach for their supervision. After the supervision, a "Teaching Practice Appraisal Form" (Appendix E) was completed for the student teachers.

III. THEORETICAL FRAMEWORK OF THE STUDY

The researcher applied LaBoskey's conceptual framework (1993) for reflection in Preservice Teacher Education to study the PTP program. The reasons for selecting LaBoskey's framework were mainly :

1. LaBoskey's framework has established propositions of "Context" that suits the purpose of the research.

As mentioned in previous sections, as an evaluation study , this case study aims not merely at inquiring into the degree of effectiveness of the PTP programme in accomplishing its objectives (the 'How'); but also tried to explore the contextual factors, if any, that affected the actual effects and consequences whether planned or not by the program (the 'Why').

2. LaBoskey's framework highlights the propositions of "individual difference" among student teachers as an input. This is an important and meaningful theme for this research.
3. His framework stresses the various propositions of "act of reflection" and "New Comprehension" of student teachers after the programme (including the change in reflective ability and development of personal belief). Both of these, again, were significant variables that the researcher wished to investigate in this case study.

LABOSKEY'S CONCEPTUAL FRAMEWORK FOR REFLECTION IN PRESERVICE TEACHER EDUCATION

LaBoskey's conceptual framework has a specified portrayal of the terms "Common-sense Thinker" and "Alert Novice". The 'Common-sense Thinkers' are categorized as those student teachers who are unable to engage in the cognitive process of reflective thinking and others who have the ability but seem to have beliefs, values, attitudes and emotions that prevent or distort the reflective process in most situations. The 'Alert Novices' are those who have both cognitive ability and conducive beliefs, values, attitudes and emotions to engage in reflective thinking.

LaBoskey then explains that "if a person is to engage in a particular act of reflection, there must be a reason or impetus for doing so" (p.31). He therefore isolates "impetus" as the second distinctive feature of his framework. Impetus is sub-divided into "internal impetus" and "external impetus". In other words, internal impetus means internal motivation to engage in reflection; while external impetus means external motivation from the particular act of reflection required by teacher education programs .

LaBoskey then explains that the "act of reflection" is affected by "context" and "content" of reflection. And, to carry out an act of reflection, a certain process must be employed: it is problem-setting, means/ends analysis and generalization in LaBoskey's system. The attitudes of "Openmindedness", "Responsibility" and "Wholeheartedness" are similarly included.

The results of reflection vary depending upon the purpose, the context, the content and the process actually followed. The primary outcome, LaBoskey says, would be a "new comprehension(s)" which may be:

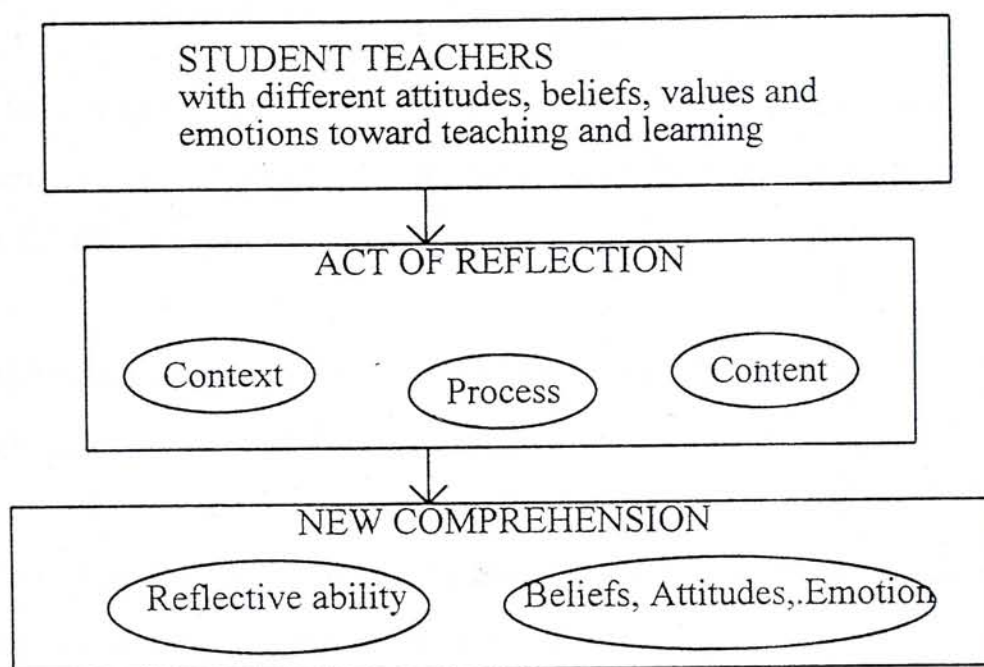
1. an improved ability to carry out an act of reflection;
2. an additional or changed belief about a particular topic in such areas as curriculum, subject matter, or instruction -- pedagogical content knowledge;
3. an attitude or value about what is important to teach and why -- a moral standard or theoretical assumption; and
4. an alteration of one's emotional states or traits. (p. 10)

LaBoskey develops a framework for thinking about reflection by drawing upon a wide range of literature and her own empirical researches. Her framework involves a complex interplay of cognitive abilities, beliefs, values, attitudes and emotions which are employed within a problem-solving context. Her framework is quite sophisticated. Due to various factors such as the focus of study, contextual difference and time limit, the researcher simplified the classification of input (categories of student teachers). The study of output for this research (learning outcome of student teachers) had followed LaBoskey's suggestion. An attempt was made by the researcher to analyse preservice teachers' change in "reflective skills", "values-attitudes" and "beliefs-knowledge" (the New comprehension, in LaBoskey's words).

THEORETICAL FRAMEWORK OF THIS RESEARCH

The researcher of this study, in consideration of the specific nature of the Case (the PTP Reflective Preservice Teacher Education program), modified LaBoskey's conceptual framework for reflection and constructed the following theoretical framework for this research shown in fig. 1:

Figure 1 : Theoretical Framework of the study : Reflection in a Preservice Teacher Education Program (the Case)



~ adapted from LaBoskey(1993, p.28, Fig.2.3)

The framework firstly took into consideration the fact that prospective teachers entered the teacher education program with different beliefs, values and attitudes toward teaching and learning (after Zeichner, 1987; Calderhead, 1993, etc.). These individual student teachers with different 'internal impetus' were motivated externally by the College's PTP program (the external impetus) to try the "act of reflection". The act of reflection included three components, they were :

1. influence from the CONTEXT (such as timing, school setting and structural aids to reflection, etc.)
2. Particular PROCESS of reflection employed in the programme which included lesson observation and analysis, self-evaluation, peer observation exercise and clinical supervision of teaching practice.
3. CONTENT of reflection as designated in the programme mainly included general pedagogy(teaching behaviour), personal theory, and any others that could be identified and tracked in the case study process.

The results of reflection would probable be a "New Comprehension(s)". For the original purpose of the PTP program, it might include the following potential outcomes:

1. Alteration of one's (individual student teacher) beliefs, values and attitudes toward teaching.
2. A willingness and interest to become "a student of teaching", i.e. interest in reflecting carefully on teaching.
3. An enhancement of reflective ability by identifying problems, formulating ways for improvement about teaching and learning.
4. A growth in self-understanding and self-awareness.
5. A development of Personal Theory towards teaching and learning.

This conceptual framework acted as a preliminary framework awaiting further expansion, exploration and clarification.

CHAPTER FOUR

THE RESEARCH DESIGN

I. RESEARCH QUESTIONS

Research questions for this case study were designed, firstly, with consideration of the rationale of the Program under study. Then, Cruickshank and Zeichner's recommendation were considered when setting the questions.

Cruickshank (1987, p.33) offers a list of questions for evaluation of participation in Reflective Teaching. These questions are devised according to two criteria. The major criterion is the willingness of student teachers to become students of teaching: "To what extent do they wish to study and to learn from their teaching experience?" A related criterion is their growth as teachers: "To what extent do they demonstrate the characteristics of thoughtful, wise teachers?"

Cruickshank's sets of questions were adapted to guide the study; Zeichner's suggestion to consider the problem of "individual difference" among student teachers was also included in the study. Taking the primary purpose of the case study into consideration, the following research questions were proposed for investigation:

1. To what extent has the program attained its objectives?
 - (a) Did student teachers give evidence of interest in reflecting carefully on teaching, as opposed to merely performing as teachers?
 - (b) Were student teachers able to identify and subject their beliefs and actions to inspection and evaluation? How, and Why?

- (c) Were they able to formulate ways for improving teaching and learning? How, and Why?
 - (d) How far did they grow in self-understanding and self-awareness, as originally planned in the programme?
 - (e) To what extent were they able to extract personal meaning from their teaching and learning experiences that gave them further direction?
 - (f) What kind of personal theory to teaching and learning did they develop?
 - (g) To what extent did the programme help student teachers with different beliefs and perceptions towards teaching and learning to develop reflective thinking?
2. To what extent did the context and other factors act on the consequences and actual effects of the programme?
- i.e. What were the factors, if any, that influenced individual student teachers in implementing the program's reflective propositions?

II. THE CASE STUDY DESIGN

The research was a case study.

Case study is "an umbrella term for a family of research methods having in common the decision to focus or inquiry around an instance" (Bell, 1989, p.6,7). According to Cohen and Manion (1989, p.125), conducting a case study is to analyse intensively the "multifarious" phenomena that constitute the life cycle of the unit with a view to establishing generalization about the wider population to which that unit belongs. This description is similar to Yin's (1984, p.36) who states that a case study has a capability of making "analytical generalization", in contrast

to the capability of making “statistical generalization” by experimental and comparative researches.

Schramm (1971) also states that a case study is one that tries to illuminate a decision or set of decisions : why they were taken, how they were implemented, and with what result. This case study would hopefully follow the direction suggested by Schramm so that a program that helps student teachers to reflect would be studied in detail : why it is taken, how it is implemented and what result it brings.

This case study aims at studying in-depth a preservice teacher education program (PTP) in a College of Education in Hong Kong. The PTP comprised a number of elements of study among which was the promotion of student students’ ability and skill in reflectivity and self-evaluation.

The use of case study as a strategy for studying the program was considered appropriate because of the three aspects of justifications listed below :

1. The (PTP) program investigated a contemporary phenomenon (reflective teaching) within its real-life context;
2. The boundaries between the phenomenon and context were not clearly evident; and
3. Multiple sources of evidence could be used.

(Yin, 1984, p.23)

This research adapted a “naturalistic” approach in a case study strategy to investigate the program mentioned above (Guba & Lincoln, 1981). The main purpose was, through an emergent inquiry into the program activities and its outcomes, to :

1. determine what was really happening in this (PTP) program;
2. identify actual effects and consequences whether planned or unplanned; and
3. better understand the context of the (PTP) program and the forces acting on it;

(Brinkerhoff *et al.*,1983, p.42)

and, as a consequence, finally but most importantly, to :

4. illuminate the possibility and plausibility of reflective teaching for preservice teacher training in Hong Kong; and
5. clarify, challenge or extend the theory of reflective teaching for preservice teacher training.

Hence, the research, in the form of a case study, was evaluative in nature. Its purpose was to evaluate the extent to which the PTP had attained its objectives of reflective teaching. Then, with the outcomes, the research tried to exercise its exploratory purpose. It was exploratory because it attempted to explore, firstly, the various 'How' and 'Why' questions (Yin, 1984) about the program: the process, its context and content of the 'act of reflection' it proposes; secondly, the possibility and the plausibility of reflective teaching and thirdly, the clarification and extension of the theory.

The research design was a single-case study that involved multiple units of analysis. If analysed by Yin's 2x2 matrix (1984, p.41), it fell right into TYPE 2. The target case was the preservice teacher training program, namely the PTP, conducted in a College of Education in Hong Kong.

III. POPULATION AND SAMPLE

	Single-Case Designs	Multiple-Case Designs
Holistic (Single unit of analysis)	TYPE 1	TYPE 3
Embedded (multiple units of analysis)	TYPE 2	TYPE 4

Figure 2: Basic types of designs for case studies (Yin, 1984, p.41)

Within the target case, subunits of analyses were incorporated. As a result an embedded design was developed. These subunits of analyses were the individual components of the PTP program that were designed to help student teachers to reflect. They added significant opportunities for extensive analysis and thus enhanced insight into the single case:

The Single Case : Primary Training Programme (PTP)

Subunits for analyses :

- (a) Lesson for analysis (Classroom observation)
- (b) Self-evaluation practice
- (c) Peer-observation exercise
- (d) Clinical supervision process

III. POPULATION AND SAMPLE

Six student teachers, chosen randomly among all first year student teachers in the College in which the researcher served, were invited to participate in the research on a voluntary basis. The researcher explained to these preservice teachers the objectives and the rationale behind such this study. The researcher had also stressed to the six subjects that the importance of voluntary participation as well as honest feedback was both vital to ensure the validity of the research. They were appointed to a primary school for their teaching practice which lasted for five weeks from 15 March 1994 to 4 May 1994. The primary school in which they taught was run by the government. During the teaching practice period, the six student teachers performed the job of a regular primary school teacher. For the first time, they taught general subjects to upper and lower primary students. However, their workload was only half that of regular teachers. Generally speaking, each student teacher was responsible to teach only thirteen to fifteen teaching periods a week.

IV. PROCEDURES OF DATA COLLECTION

Before the research started, I spent nearly a whole academic year trying to establish rapport with the student teachers. I considered this to be vital in helping me to have deeper understanding of the character, language, thinking and even the culture of student teachers. I could also look at the running of the teacher education curriculum in the College of Education from the perspective of student teachers. All this informal information was significant for me to frame and reformat the direction of research objectives, research questions and even research design. Furthermore, I was delighted to establish close relationship with these student teachers. This preparatory work helped me to minimize the researcher effect for this study. A number

of strategies were adopted for building up rapport with the group of student teachers:

- From the beginning of the College term, I tried to project the image of a friendly and considerate tutor during lecturing, tutorial discussion and casual talks in corridors, canteens, the library and playground.
- Whenever I was invited by the student teachers, I would join their social gatherings, picnicking and lunches.
- I always showed my willingness to help whenever they needed assistance and sharing by being accessible to them in the staff room during recess and lunch. I found that they loved to share their happiness, success, problems and sorrow with me.
- I explained the aims, rationale and method of this research to them. I also informed them that they could amend a transcript of their interviews before it would be used.

I gradually gained rapport and access to them. I then conducted interview (I) before the teaching practice began.

Teaching practice took place from 15 March 94 to 4 May 1994. During the whole period, I visited the school three to four times a week. Each visit lasted for a whole day. This was possible because of the support and kindness of the headmaster and the staff of this whole-day primary school. This enabled my student teachers and me to work freely. The visits were happy and fruitful. The first week was a preparation week for the student teachers to get acquainted with the primary school as well as to plan and design their lessons. I visited them to give assistance and guidance. Then they began their classroom teaching. Every time I visited these student teachers, we had a lot to discuss and I could collect research data such as peer observation reports, self-evaluation records, etc. Besides, through informal talks I could collect their opinions of their working context, difficulties and feelings towards the implementation of the PTP program, etc.

The whole team (the student teachers and the researcher) could also share the problems and successes of the teaching practice period. A team spirit gradually developed. Throughout the process I took care that my personal affection and feeling for my students would not influence objectivity and directions of the research.

I intended to collect formal and planned interview data of individual student teachers including: (a) Pre-teaching practice Interview(Ia), namely 'Perception of teaching'; (b) Post-teaching practice Interview(Ib) , again named as 'Perception of teaching'; and (c) Interview(II), 'Evaluation of participation in a reflective teaching program'.

The second type of data was a variety of documents completed by the student teachers for analysis. They were: Lesson for analysis observation reports, peer observation records, and self-evaluation reports. The final type of data was transcribed records of the pre-conference and post-conference held for clinical supervision conducted with each student teacher. These will be explained in greater detail below.

1. Interviews with Student Teachers

Interviews were the most significant method used in this research. "The purpose of interviewing is to find out what is in and on someone's mind." (Patton, 1980, p.196) This was the reason I adopted interviews for this study. The aim of this study was to understand how a teacher training programme can help preservice teachers to reflect. Reflection is concerned with thinking. Thoughts cannot be directly observed or measured. Furthermore, this study also aimed to look into the student teachers' feelings towards and opinions of the PTP. I could only gather this type of data if I was able to enter into the minds of the target subjects. Interviewing, for this reason, was a valid and desirable data collection method.

Two semi-structured interviews, named Interview I and Interview II were administered formally to the student teachers. Cantonese was used as the language of communication for these interviews. Open-ended questions were used.

Interview (I) was fairly structured but a semi-open format was used. The interview was conducted once before and once after the teaching practice period. Hence, they were named Interview (Ia) and Interview (Ib) respectively. The major interview questions were :

- (a) What does the word "teaching" mean to you?
- (b) Why do you want to become a teacher?
- (c) What are the strategies and principles that you consider to be most effective as well as important for teaching primary students?
- (d) Some people have suggested that many teachers can develop their own "theories" of teaching, and sometimes these theories can be substantially different from the theories learnt in College. What do you think about this suggestion?
- (e) What do you think teacher training in College have done/ could have done to help you most (for your perception and practice in teaching)?
- (f) Briefly describe your own "theory" about teaching.

The interview questions were adapted from a Questionnaire on Science teaching which was used in the research on "Making sense of Constructivism in Preservice" carried out by Sharon (1990) in the University of British Columbia. Sharon's research was similar in nature to this research. The objectives of study were quite similar, too. It intended to trace the change in attitude of student teachers after reflective learning. By adapting its questionnaire for interview for use in this research, the validity and reliability of the interview would hopefully be enhanced.

Interview (II) was conducted at the end of the program. The interview was focused on the following issues:

- (a) Student teachers' opinions and attitudes about the program and the various components within it.
- (b) Experiences and feelings in the implementing process.
- (c) Gains and losses in the implementing process.
- (d) Personal assessment of one's own improvement in reflective ability.
- (e) Willingness to become a student of teaching, i.e. a reflective teacher, as a life-long attitude towards teaching.

Interview (II) was conducted to gather meaningful opinions of the six student teachers towards the Primary Training Programme. Data obtained were transcribed and analysed. They were invaluable to the study of the influence of context and other factors on the actual effects of the programme.

To ensure accuracy in data collection, both interviews (Ia, Ib) and (II) were taped-recorded with the permission of the interviewees. The measure would also permit the interviewer to be more attentive to the interviewees. (Patton, 1987, p.247) Each of these interviews lasted about thirty minutes for each student teachers. I conducted all the interviews in the same quiet room in the College. Since I had already established adequate rapport and trust with the student teachers, the researcher effect was minimized. Because they had prior understanding of the research objectives, the student teacher were willing to provide honest and sincere opinions during the interviews. They claimed that they were ready to give useful responses to improve the PTP program. The student teachers said that they could respond comfortably, accurately and honestly to all interviewing questions. This could be shown in the following quotations,

Kin said,

“Don’t worry! I would spell out the truth for the sake of God. I believe that the College needs frank opinions for improvement.”

Jenny said,

“Certainly, we trust that you have positive aims for your study. I enjoy sharing my sincere feelings with you. I know you always care (about us).”

(informal talks before Interview Ia)

Data obtained from Interview (Ia, Ib) were transcribed, analysed and compared at two time points (at the beginning and at the end of the programme) in order to explore the change in attitudes and feelings of student teachers (if any) towards teaching. This might help to identify growth in self-understanding, in personal insights about teaching of student teachers by the end of the programme. To enhance the validity and reliability of the study, the transcribed interview data was validated by the respondents.

2. Record analysis

The following three subunits in the Primary Training Program were major data for study :

- (a) Lesson for analysis observation reports,
- (b) Peer observation records,
- (c) Self evaluation reports.

While the lessons for analysis and peer observation were carried out once during PTP, self-evaluation was conducted constantly within the five-weeks teaching practice. To make better use of self-evaluation record data, a time series strategy was adopted.

Frequencies and distribution of certain key practicum behaviours of student teachers during self-evaluations of serial teaching practice were charted over the five-weeks teaching practice period. These data were compared at five time points (i.e. the five weeks of teaching practice). This time-series analysis was adopted in order to track the development of quality and content of reflection for individual student teachers within the PTP period. The selected variables (key practicum behaviors) were willingness and ability demonstrated by student teacher to:

- (a) identify a (teaching and learning) problem
- (b) formulate ways for improvement
- (c) experiment with ways for improvement
- (d) discover the consequences and implications of various solutions
- (e) examine the intended and unintended consequences
- (f) evaluate the solution
- (g) reframe the solution

(adapted from Ross, 1989)

As a result, a similar chart as the one proposed below was drawn for each student teacher, showing the change in the student's personal reflective theory during serial practice:

Key practicum self-evaluation behaviours

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
week 1							
week 2							
week 3							
week 4							
week 5							

(adapted from Tann, 1993)

These records provided some kind of observable data to tackle the research problem. From these self-written reports of student teachers. I

could observe the content as well as the quality of reflection of individual student teachers. I would then compare and contrast these three types of data. Since the student teachers wrote these records in sequence, the comparison was similar to a time series analysis. This enabled me to trace the growth or change in attitude, reflectivity and feelings of the student teachers during teaching practice. Useful information could thus be obtained to answer the research questions.

3. Clinical supervision

The content and quality of reflection which became obvious during the process of clinical supervision was a valuable source of information for me to track the growth of reflectivity of individual student teacher. For this purpose, the pre-conference and post-conference of the clinical supervision was tape-recorded, transcribed and analysed. These conferences were conducted between myself and individual student teachers before and after each practical teaching in classrooms. The preconferences usually lasted ten to fifteen minutes whereas the postconferences were usually for about half an hour. These conferences were mostly conducted in a quiet classroom in the primary school in which the subjects practised teaching.

V. DATA ANALYSIS

The data collected were analysed in the following procedures :

1. Assembling and organisation of case study raw data
2. Analysis of the case study data
3. Interpretations and explanations
4. Validation and verification of findings
5. Translation of data

The first step was assembling all the raw data from the research. These case data included data from interviews, lessons for analysis observation records, peer observation reports, self-evaluation reports and records of preconference and postconference for clinical supervision. The second step involved scanning. I reread all the raw data and jotted down notes in the process. As I read through my data, I also searched for regularities and patterns, writing down words and phrases to represent any regularities and patterns that emerged. These words and phrases became my coding categories. The next step was sorting and organising the descriptive data I had collected with these categories. I used a file card system to help me. This constituted the beginning stages of integrating, synthesizing and generalizing (Patton, 1990).

I continued to employ "Inductive Analysis" (Patton, 1990) as an analytic strategy to further analyse and interpret the case study data. The researcher identified patterns, themes, tendencies and trends that emerged from the data; they emerged out of the data rather than being imposed on them prior to data collection and analysis. Then I tried to establish linkages and relationship by simple comparing and contrasting and by inference. This was guided and hinted by the explicit theoretical frameworks with which this study was initiated and also constructs made explicit by the participants of the research. This was followed by careful interpretation and explanation. The final step was to provide useful and meaningful answers to the research questions.

Another basic purpose of qualitative analysis was to provide credible findings. Hence, I took care to subject the data to careful examination by validation and verification. Yin (1984, P.35) asserts that four design tests are relevant for case studies and other type of social sciences. These four design tests are :

- (1) Construct validity,

- (2) Internal validity,
- (3) External validity, and
- (4) Reliability.

Yin (1984, p.36) then identifies several tactics for dealing with these tests for case studies. This research tried to embrace these suggestions.

CONSTRUCT VALIDITY

To deal with construct validity, the researcher used "*multiple sources of evidenc*". These included various written reports, administrative documents, interviews, observation, etc. All these sources of indications are listed and explained in the previous sections.

"A multimethods approach to fieldwork increases both the validity and the reliability..." (Patton, 1980, p.158). As each data source has strengths and weaknesses, by using a variety of sources and resources, the researcher could build on the strengths of each type of data collection while minimizing the weaknesses of any single approach. This tactic is termed 'triangulation' (Denzin, 1978, p.28). According to Denzin's classification, there are four basic types of triangulation. The types of triangulation employed in this research were 'data triangulation' and 'methodological triangulation'.

The second way to encounter construct validity is to establish *chain of evidence* by inviting an external observer to be the reader of the case study. I had invited a friend who is a professional teacher educator in a College of Education in Hong Kong to be the external observer of my research. He not only has good knowledge of the field of study this research belongs to, but he is acquainted with the qualitative research methodology.

The third measure is to have *key informants review interview transcripts*. To ease the access problem and facilitate conversation, interviews in the study would be conducted in Cantonese but the taped conversation would be translated and transcribed into English. The transcripts of the studies were sent back to the respondents for verification. This, apart from providing an opportunity for respondents to further elaborate their views, ascertained that the transcripts truly reflected their views.

INTERNAL VALIDITY

Explanation-building was the analytic strategy that was used to analyze the case study data by building an explanation about the case. Casual links which might reflect critical insights were sought. Its goal was to develop ideas for further study. Explanations thus built would, hopefully, contribute some theoretically significant propositions to the field of study. In this way, the internal validity of this research would be highly increased.

EXTERNAL VALIDITY

Critics often say that single cases offer a poor basis for generalizing. However, case studies rely on analytical generalization, whereas experimental and survey research rely on statistical generalization (Linn & Erickson, 1993). In this study, the researcher tried to generalize findings to proposition, rather than aimed at statistical generalization.

RELIABILITY

Yin (1984, p.40) proposes that to approach the reliability problem of a case study, the general way is "to make as many steps as possible, as operational as possible, and to conduct research as if someone were always

looking over your shoulder.” The researcher adopted a tactic suggested by Yin to deal with this problem-- the development of a case study data base.

Other investigators or critical readers could review directly and not be limited to the written report. In this way, the data base could increase markedly the reliability of the entire case study.

In this research, all the data collected including case study notes, documents and transcribed notes, were included in the data base.

To enhance the reliability and internal validity, the researcher had conducted a pilot case study. The pilot case study could also help to refine data collection plan and research direction. A less structured pilot case study was conducted during the period of “school attachment”. School attachment was the preparation and planning period specially arranged by the College for student teachers. It lasted for one week before teaching practice. Another group of student teachers were chosen for the purpose. Formal and informal interviews were carried out concerning their preconception of teaching, their attitude towards the reflective teacher education program proposed by the College. Some student teachers were invited to try out the self-evaluation and peer-observation exercise. The pilot case study was meaningful and useful to clarify the conceptual framework of the research. A brief pilot case study report is attached in Appendix E.

VI. LIMITATIONS OF THE STUDY

This study has several limitations:

1. The single case study cannot be generalized to the population.
2. The five weeks allowed for teaching practice (five weeks) might not be long enough to promote growth of reflectivity for some student teachers.
3. Because the researcher was also the student teachers' tutor, the instructor effect might influence the student teachers. However, rapport, trust and friendly relationship between the investigator and the student teachers might be helpful when resolving the problem.
4. The study was confined to a particular school where a particular team of student teachers was practising their teaching. The context of teaching practice might have some effects on the results. Teachers might need to bear this in mind when interpreting the findings.
5. Owing to the time constraint and the limited efforts of one researcher, the study aimed at only one case. More fruitful findings could result from a multiple case study.

CHAPTER FOUR

CASE ANALYSIS

The researcher started the case analysis with a brief description of each individual student teacher. Then, with each student teacher as a unit of analysis, the researcher reported and analyzed the extent to which PTP helped in the development of reflective thinking. This included the explication of the following:

1. interest to reflect ;
2. content and quality of reflection;
3. perspectives and level of reflection;
4. development of personal theory;
5. becoming a reflective practitioner;
6. willingness to become a student of teaching as a lifelong career orientation.

I. The Student Teachers

The six student teachers in this study are individuals each possessing distinctive character, traits and personality. When they joined the PTP they held different attitudes and expectations towards the teaching profession. The following descriptions of the six based on my personal observations during our close interaction as a research team:

Yetta

Yetta is quiet but pleasant. Ever since childhood she has wanted to become a teacher. She is now a highly motivated teacher; her perception of her profession is greatly influenced by her love of children, her innate kindness and her devotion to her Christian beliefs.

Ling

Ling has a quiet passive personality, seldom expressing her feelings. But she is very pleasant and gentle, and can be quite sentimental and easily moved to tears. She has wanted to be a teacher since childhood.

Wong

Wong is kind and considerate. Hence she has lots of friends whom she is always willing to help. She is also a devoted Christian. She is a highly motivated teacher, diligent, eager to learn and is always willing to accept challenges. In her upbringing she shows the traditional Chinese love of family, children and respect of her future husband. She sees herself as being so committed to teaching that she will never quit her profession, even after marriage. Her enthusiasm is clearly seen in her work at the College.

Kin

Kin is an active, ambitious and confident young man who shows himself to be an innovative thinker as regards his profession, society and his own future. However, he can be quite arrogant and stubborn at times. He is really quite realistic in his outlook. He confessed that he is not interested in teaching which, he says, is a boring job and he was forced to enter the College because he could not get a place in the universities and polytechnics to study Public and Social Administration. His chief reasons for continuing his study in College were 'salary' and 'prospects'. He said that if there were any salary reduction after 1997, he would leave teaching for another job.

Jenny

Jenny had wanted to be a teacher all her life and her disposition makes her imminently suitable to be a primary school teacher. She loves and understands children and she is frank, friendly and confident. Academically she is one of the brightest of her year. She says that even if she had gone to university instead of the College, she would still choose teaching as a career.

Yee

Yee has a cool personality, lacking in self-confidence when facing people and children. Mentally she is rather rigid, slow in response, acceptability and adaptability. On top of this, she does not show herself to be diligent. She has admitted that she never seriously considered teaching as a career and studying in the College was her last choice after she graduated from secondary school. Hence, her motivation and interest towards teaching is very low.

From these observations, it is obvious that the six student teachers entered the programme with different attitudes and emotions towards teaching. Jenny and Wong had the highest internal motivation towards the profession followed by Yetta and Ling with Kin and Yee being the least committed (Table 5.1). These individual differences were influential to the development of personal theories towards teaching and learning.

Table 5.1 Individual differences among the six student teachers

Student teachers	Character/ Personalities	Attitudes/ Emotions toward teaching
Yetta	kind, quiet; loves children	- resolution from childhood; - high motivation.
Ling	nice, passive, sentimental	- resolution since childhood; - high motivation.
Wong	kind, considerate, helpful, traditional and nice; loves children	- resolution since childhood; - high motivation; - her beloved profession.
Jenny	keen, frank, confident, academically high achievement.	- loves teaching; - high motivation; - resolution since childhood.
Kin	arrogant & stubborn; active & innovative; ambitious & confident; realistic.	- realistic orientation to enter the profession; - not interested in teaching; - view teaching as a 'job'; - not his original resolution; - teaching is only a 'stepping stone'.
Yee	lacks self-confidence; cool & slow; neither keen nor diligent; low alertness & adaptability.	- teaching is her last choice; - low motivation.

II. Professional Growth (in reflective thinking) of the six student teachers

1. Interest to reflect

To study the interest of student teachers in reflecting carefully on teaching, the researcher used the quantity of self-evaluation reports and peer observation reports that were optionally written by student teachers. The data in Interview(I) and (II) were also used to search for additional data support.

The frequency table below (Table 5.2) helped to give a preliminary impression of how much interest the six student teachers felt towards reflective thinking in teaching. The PTP program was not intended to force student teachers into writing self-evaluation report or to implement peer observation. The six student teachers had freedom of choice. The researcher also refrained from pushing the student teachers to try these reflective practices so as to find out the real research outcome.

Table 5.2 Frequency of conducting self-evaluation and peer observation

student teacher	self-evaluation report (frequency)	peer observation report (frequency)	total no. of the two reflective components
Kin	12	4	16
Wong	14	3	17
Ling	9	3	12
Yetta	6	4	10
Jenny	24	4	28
Yee	4	2	6

By averaging the frequency of the two reflective components within the five weeks of teaching practice, it could be seen that all the student teachers, except Yee, had written two or more self-evaluation reports per week during the teaching practice period. Jenny was the keenest one, she wrote almost five times a week. For peer observation

practice, all except Yee wrote reports about once a week. This simple and rough statistical breakdown indicates quite a satisfactory quantity of reflective practice having been accomplished by the six subjects during the PTP period.

Did the student teachers really show interest in reflecting carefully on teaching, as opposed to merely performing as teachers? The researcher searched for further evidence from Interview(II):

When the six student teachers were interviewed about their views towards self-evaluation practice, all of them gave positive responses:

Jenny: *I think that it's useful.... Because we're novice teacher. When we learn to teach, it's helpful if we try to reflect upon the teaching behaviours for every lessons and search for ways for improvement by next time. We would grow professionally by this means.*

Wong: *I think that the questions so set could guide us to analyze the lessons we conduct. The most useful thing is that it asks us to think of the way to improve next time. This pushes me to reflect and improve.*

Kin: *It's good and valuable. It helps us to reflect and improve... For student teachers who are learning to teach, reflection and analysis is more important than sheer practice.*

Ling: *Self-evaluation has a good point. It forces me to look back my lessons and reflects for improvement. It makes me aware of the weaknesses and strong points of the lessons that I've conducted.*

Yetta: *It would push me to think of ways for improvement.*

Yee: *I think that self-evaluation is useful because it provides a means for us to reflect about each of the lesson we teach.*

All six student teachers valued self-evaluation practice as a PTP component for one common reason: it helped them to improve. This shows that they recognize the importance of reflection in teaching.

2. Content and quality of reflection

The six student teachers also felt that peer observation was useful in helping them to improve their teaching:

Jenny: *It's good because through observing peer's teaching I could improve my own teaching behaviour. I would improve myself when I observe and criticize others' teaching. I could also help peers to improve in this way.*

Wong: *I could get much insights to improve when I observe peer teaching.*

Kin: *Peer observation is helpful because through observing other people's teaching I could reflect on my own teaching behaviour which contributes towards my own growth.*

Ling: *Only positive feeling; we observe, discuss and give advice to each other for improvement....I would listen and accept; then I would consider the real situation of my own student, my interest, my ability and environment before I decide whether to implement peer's opinion.*

Yetta: *Peer observation helps me by observing others' failure or weaknesses. The discussion we hold after each peer observation is stimulating and helpful.*

Yee: *For me, I'm too lazy to feel the usefulness of the means -- many times I haven't read the comments given by my peers after their observation.*

Aside from Yee, none of the student teachers denied that peer observation was helpful to them in reflecting on and improving their own teaching. This further suggests that they might have interest to reflect for their own teaching.

2. Content and quality of reflection

A core topic for study was the content and quality of reflection for the six student teachers. This enabled the researcher to examine the extent the PTP programme was able to help student teachers to develop reflective thinking. In this way, the researcher could also understand how far the six student teachers grew in self-understanding and self-awareness.

Reflective 'content' means "what it is that teachers ought to be reflecting about, the kinds of criteria that should come into play during the process of reflection (Zeichner, 1991, p.2)." To study the content of reflection student teachers were developing, three related frameworks were used to analyze the content of reflection presented in lesson for analysis observation reports, peer observation reports, self-evaluation records and interview data collected in clinical supervision.

Firstly, the content of all the written data listed above was judged according to the depth of ideas presented. It is believed that the more concrete, the more detailed and specific a description, the more the writer could develop self-understanding and self-awareness. And it can be said that at the same time s/he would be developing her/his personal reflective thinking. On the other hand, if a student teacher wrote vague, abstract or general comments with little in-depth analytical reflection, we could say that he has not yet truly nor ideally developed the reflective ability to inquire into his or other people's teaching.

Following this step, the content of reflection of all written and interview data was viewed by another set of criteria. The researcher searched carefully to see if the reflection of a student teacher had moved from an understandable obsession with 'survival' to paying greater attention to 'procedural strategies' and then to 'critical

pedagogy'. This framework was adapted from the suggestion of Tann(1993). The pattern of growth of the student teachers in this aspect during teaching practice was also the focus of discussion.

Reflective 'quality' implies "growth in thinking... improving conceptual level....avoiding unthinking conformity; analyzing a problem from multiple perspectives and using new evidence to reassess professional judgment." (Calderhead, 1993, p.3) Ross(1990) has described elements of teachers' thinking which combines various aspects of cognitive, narrative and critical reflection. To scrutinize the quality of reflection, Ross's framework was used for time series analysis. Frequencies and quality of key practicum behaviours of student teachers during the five time points (i.e. the five weeks) of teaching practice were charted and analyzed (see Table 1 to Table 6 in 'Appendix G'). These selected variables are willingness and abilities demonstrated by student teachers to:

- (a) identify a (teaching and learning) problem
- (b) formulate ways for improvement
- (c) experiment with ways for improvement
- (d) discover the consequences and implications of various solutions
- (e) examine the intended and unintended consequences
- (f) evaluate the solution; and
- (g) reframe the solution

Elements (e) to (g) are most valuable practicum behaviours. They represent the key thinking processes in critical reflection. The researcher looked into the question of whether the student teachers were able to practise these abilities.

A brief inquiry into the pattern of development for individual student teacher is set out in the following section:

Yetta

When writing the Lesson for analysis observation reports before the beginning of teaching practice, Yetta mainly identified the weaknesses and strong points of the demonstrating teacher. She wrote in short note-form such as:

"adequate but spoke too fast;"

"cool attitude;"

"adequate but irrelevant teaching aids;"

"good blackboard usage;"

"inadequate individual help given to pupils;"

"good class discipline; poor learning atmosphere"

During teaching practice, Yetta conducted peer observations. Analysis of Yetta's peer observation records shows that she focused her criticism in the peers' teaching performance on the following items:

- *blackboard arrangement;*
- *learning atmosphere;*
- *teacher's voice;*
- *speech and instructional delivery;*
- *teacher's non-verbal communication techniques;*
- *teacher's alertness;*
- *teacher's concern for student needs;*
- *teacher-pupil relationship.*

Again, these critiques were in short note-form such as:

"adequate content knowledge;"

"concerned with student needs;"

"interesting teaching aids..."

The short notes used by Yetta included abstract, general descriptions.

In the self-evaluation form, Yetta changed this writing style to short sentences:

"I will change the classroom management because it's the worst part of my last lesson."

"I was too nervous and my teaching content was too difficult."

Sometimes she wrote in short paragraphs:

"I was most interested to find that some students who did their work very well (suited my requirement); I will give more praise to those hardworking students. Children need positive acknowledgment."

"They cannot finish the work in class. I will let them do something more simple next time which is more suitable for their level and actual needs."

These descriptions are more concrete and precise with personal meaning.

Furthermore, in self-evaluation practice, it was interesting to find out that not only could Yetta identify problems, but she could also formulate ways for improvement. Data collected in these self evaluation practice reviewed that Yetta could, at times, exercise other key practice self-evaluation behaviours (Ross, 1989). Table 1 in

'Appendix G' gave a simple outlook of Yetta's willingness and ability in this aspect. The chart shows the frequency and the key content of Yetta's seven practice self-evaluation behaviours during the four week teaching practice.

In these self-evaluation reports it can be seen that Yetta has widened her outlook about teaching and learning. She has moved from survival concerns to procedural strategies and then to critical pedagogy:

Yetta was reflective for the aim of survival at the beginning of serial teaching practice. This was because when faced with a real class of forty children, the first thing she wished to do was to 'conquer' them.

e.g.

"I will stop group activities next time to reduce noise levels."

"I need to time my lesson better because many students turned to their own activities at the end of the lesson."

Then, Yetta started to identify, formulate solution and experiment solutions which were generalizable to teaching strategies or principles learnt in College. This kind of reflection upon practicum behaviour could be found mainly towards the end of week two.

e.g.

"I have tried direct presentation method to elucidate students' response."

"This time I have used group discussion to enhance students' participation."

"Role-play is really an effective mode of teaching! Students are supportive."

As shown in subsequent self-evaluation reports, Yetta started to be critical. Her reflection started to be related to the children's needs

and their learning outcome. This kind of reflection was chiefly found from week three onwards.

e.g.

"I should pay more attention to students' response and actual learning situation next time. "

"The students studied attentively and happily--- this was the most successful part of this lesson. "

"The students were highly involved. They found my teaching materials interesting. "

"I was surprised that the students were interested in the topic of 'tourism' in Hong Kong'."

Yetta's progression could be attributed to her sincere reflection and evaluation during teaching practice. This was verified by her honest disclosure, as she said during Interview(II):

"Though I hate the self-evaluation form; I like the practice (self-evaluation). It would encourage me to think of ways of improvement."

(Interview II)

Yetta's growth in reflective ability and willingness could be further demonstrated during the researcher's clinical supervision on 9 May 94. Extract of the supervisor's record verifies this (Table 5.3):

Table 5.3 Clinical supervision: Yetta -- supervisor's record

<p>Yetta (9 May 94)</p> <p>During the preconference, Yetta identified the problem that "the class was not attentive enough". She then tried to formulate ways to improve by (a) providing more activities provided for students and (b) giving clearer instructions and exercising firmer discipline.</p> <p>During postconference, Yetta reported that she experimented with the methods she mentioned in preconference to control classroom discipline. She was successful. She discovered that activities such as role play and interviewing could really capture the students' attention and being stricter towards naughty children was effective. Yetta further reframed the solutions and said that activities would be more suitable for lower primary students but taking a firmer attitude might be more effective for upper primary students. Yetta became more confident about her own teaching performance in the classroom and her principles in teaching.</p>
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Yetta's professional growth was good. When she expressed her view on teaching children in the postconference, her concern for individual difference was obvious.

With more and more self-confidence and clearer self-understanding during PTP, she framed her personal theory. "Moral education is the most vital requisite for children today!" she said assertively during Interview(II). Yetta's personal theory would be elaborated in later section (Section II.4) of this chapter.

Kin

In his report of lesson for analysis, Kin wrote short notes for all lessons observed. These descriptions were vague and general phrases such as:

"keen attitude";

"has learning atmosphere";

"has teacher-pupil interaction";

"no individual help/support given to pupils";

"class discipline good"...

Kin observed four lessons conducted by his peers. The subjects included Chinese, Art & Design, Music and Physical Education. In the peer observation reports, he used simple, short and vague comments:

"learning activities are adequate and relevant";

"blackboard usage needs to be improved";

"Timing is a problem";

"has attained teaching objectives";

"appropriate teacher's guidance and instruction ";

"elicitation techniques need to be polished";

"teaching aids abundant";

"poor classroom discipline";

"good teacher-pupil relationship".

The way in which Kin wrote his peer observation exercise was affected by the format of the peer observation record form (Appendix C). The phrases and wordings Kin used were exactly those suggested by the record form. As a result, his comments focused chiefly on short-term outcomes.

Self-evaluation reflected Kin's personal concern. It enhanced Kin's self-awareness of his own strengths and weaknesses. He wrote eagerly. His self-evaluation forms included sentences and short paragraphs which transmitted clear and concrete reflection. Although the reports in lesson for analysis and peer observation practices seemed impersonal and aloof, his self-evaluation really showed individual discretion. For Kin, classroom management seemed to be the most unresolved problem during his teaching practice. As reflected in the extract from self-evaluation reports, he repeatedly mentioned the same problem. This problem limited his reflection to the 'survival' level:

[week 1]

"The students talked all the time. I must mention classroom rules next time."

"Some students cried because of an argument. Next time I shall stop all activities if anyone cries."

"I have to mention the rules for group discussion next time."

[week 2]

"The students talked too much when doing the worksheet. This interferes with my timing. I would ask those students who have questions to see me during recess next time."

"Too many teaching aids! This causes confusion and disciplinary problem."

[week 3]

"I relied too much on lesson plan! This affected my classroom management."

"The students seemed more cooperative and quiet today. The lesson ran smoothly."

[week 4]

"My timing in this lesson was bad. The class became quite chaotic by the end of the lesson."

"Disorder again! I have to talk with some classmates during recess to find out the reason."

[week 5]

"I wonder whether punishment or positive reinforcement is more effective? Which principle should I choose to manage my students' disciplinary problem. I have to try hard again to find the solution."

Kin tried very hard to practise practicum self-evaluation behaviours during teaching practice. The examples quoted above showed that he would try to identify a problem, then formulate ways for improvement, and then experiment and examine the consequence. The example above demonstrated his willingness to evaluate the various solutions. We could see more clearly his frequency and content of key reflection behaviours in Table 6 of 'Appendix G'.

Kin sometimes could not perform well in reflection. The clinical supervision on 17 April 94 is an example (Table 5.4).

Table 5.4 Clinical supervision: Kin --supervisor's record

During the preconference, Kin identified two main problems of his lesson: (a) timing of lesson and (b) inadequate guidance before group discussion.

In the postconference, Kin found out that the two problems he had identified really happened. However, he failed to formulate ways for improvement in this lesson.

Although Kin seemed unsuccessful in managing his primary students during teaching practice, he was not frustrated. In his final self-evaluation report, he wrote, *"I treasure mostly the close student-teacher relationship I've established during teaching practice. I believe that this is the most successful prize I've gained during this series of practice."* Constant and keen reflection might also be helpful in clarifying his self-understanding and self-awareness. Actually, Kin's perception towards teaching and learning changed quite dramatically during PTP. He gradually loved teaching children. He no longer believed in physical punishment. His personal theory, as he exemplified in Interview(I) after teaching practice, showed quite clearly his enhancement in the dimension of reflection (refer to the section of 'Development of personal theory').

He voiced his resolution to establish a youth centre himself in order to try out this personal theory. He actually accomplished this task by early 1995. This verifies his reflective ability and willingness. He has really experimented with ways for improvement and has continued to seek for the best!

Ling

Prior to the teaching practice, Ling wrote her lesson for analysis observation reports. The style was similar to that of Kin and Yetta. Here are some examples:

"clear instruction";

"appropriate verbal and non-verbal communication";

"able to involve student participation";

"good use of teaching aids";

"good lesson planning"...

During the teaching practice, Ling observed three lessons conducted by her peers. Her style of comments on the reports remained the same. There seemed no great improvement. Phrases of short-term outcomes were commonly used. These were some examples:

"Had learning guidance";

"Used role-play as a learning activity";

"Used discussion as a learning activity";

"Used worksheets as teaching aids";

"Preparation of wordcards as teaching aids";

"Classroom discipline fairly good".

Ling's performance in self-evaluation practice was better. Short note-forms were replaced by sentences and short paragraphs. The content of her reports reflected Ling's real concern. During the first week of teaching practice, Ling focused her reflection on survival elements such as classroom management:

"The lesson failed. The whole class was too noisy. Their classroom discipline is poor. I could not achieve my original teaching objectives."

"I must have good control of classroom discipline before starting to teach anything. Otherwise all efforts are in vain."

Starting from the second week, Ling emphasized on procedural strategies as her reflective content. This might be due to the fact that her elective subject is Music. Music is a cultural subject and specialized procedural tactics have to be manipulated before any other aspects could be taken into consideration. This tendency continued till the fifth week of teaching practice. Some examples are listed below:

[week 1]

"I should have practised 'vocal accuracy' with the class first."

[week 2]

"I should not spend too much time on practising 'vocal accuracy'."

[week 3]

"All children are not too acquainted with 'rhythm'; I shall spend more effort and time on this next time."

[week 4]

"The children couldn't sing the words to the tune. Next time I'll give them more practice";

[week 5]

"A demonstration of the way to convert sound might be useful".

From the above quotation, it was obvious that Ling had practised certain reflective behaviours such as identifying a problem and formulating methods for improvement. This could be seen by glancing through (Table 2) in 'Appendix G' which shows Ling's frequency and content of reflective behaviours during PTP.

Ling was also critical when she judged her performance during teaching practice. She always felt dissatisfied with her teaching effectiveness. Many times she wrote in her self-evaluation forms, *"I'm unsuccessful. I couldn't achieve my teaching objectives. The children could not learn what I originally planned."* If classroom management was Kin's chief concerning problem, teaching effectiveness was Ling's. However, Ling was keen to frame solutions to this problem. She has experimented with various solutions for improvement. Some of these were written in her self-evaluation reports:

"I have tried using interesting learning activities to enhance learning outcomes";

"I have let each student to try so that everybody could learn better";

"Understanding children's thinking surely helps to improve teaching effectiveness";

"Teacher demonstration and constant practice, together with individual guidance and support seems beneficial"...

In the clinical supervision on 9 May 94, she tried to overcome her critical concern--- teaching effectiveness and pupil involvement (Table 5.5):

Table 5.5 Clinical supervision: Ling--supervisor's record

(9 May 94)

Ling identified that primary one students should be more active. During the preconference, she formulated two possible ways for improvement: (a) use role play and demonstration activities; (b) use a lively questioning method concerning living conditions of children to teach new Chinese words. She subjected her ideas to evaluation and inspection.

Ling experimented with these two methods to improve her teaching. She found that she successfully involved the students in the learning process. At the postconference, she said that she was satisfied and happy with the outcome. *"I saw that they were happy to participate because they were eager to raise their hands."* When she examined the consequences, she found out that by encouraging students to use new Chinese vocabulary to make sentences or apply them to their living situation, children were more motivated. She continued to reflect and evaluate. She said that at the next lesson she would invite more students, especially those sitting at the back, to participate.

Through active reflection and experimentation, Ling became happier than before. She smiled more often. (I had observed that she seldom smiled before.) She agreed that she had grown in self-understanding and self-awareness in the following aspects:

- she was able to effectively involve students in the learning process;
- she became closer and more friendly towards the students whereas she used to stand at a distance from her students;
- she had more confidence in controlling classroom discipline;
- she became freer and more open-minded.

Ling's development could be said to be satisfactory. Her reflective thinking developed during the teaching practice. By the end of PTP, she has established an important strategy or principle in teaching primary children successfully. During Interview(Ib), she explained that teaching small children should start with capturing their attention, then use clear and systematically planned teaching procedures. Suitable repetition with different teaching activities is also necessary. The cognitive characteristics of small children should be taken into consideration when designing a lesson.

Schon and Dewey were correct when they said that a reflective teacher would enjoy professional growth. Ling is a good example. She was humble and open-minded, she was also sincere and responsible towards her students. This is already proven in the evidence shown above. Her reflective quality was further validated in her plain confession during Interview(II), she said,

[Openmindedness]

"Teachers should be open-minded enough to correct, to adapt and change for the benefit of students....We should not routinely finish our job, or just teach all the contents of the textbooks."

[Responsibility]

"Teachers have not yet fulfilled their responsibility if they have not sincerely considered their students' learning needs."

[Wholeheartedness]

"Every teacher must be prepared to change. This is a must if what I would do or change is for the sake of my students."

Yee

Yee was unwilling to write lesson for analysis observation reports. She wrote much less than her peers did. She seldom completed all the evaluation items. She chose two to three points and criticised briefly in one single phrase, for example:

Lesson for analysis : Observation report (13 April)

- A. The Teacher
Teacher's voice is sweet and nice.
- B. Preparation
Adequate teaching aids
- C. Teacher's performance
Nil
- D. Management
Nil
- E. Other suggestions
Nil

Judging from the simplicity of comments on the lessons, it is doubtful if Ling could achieve the aim of this reflective practice. It seems that Yee completed the forms only because she had to hand them to the tutors. She admitted this in Interview(II),

*'I was reluctant to write after observing demonstration lessons.
But since it was compulsory to hand in, I've finished a few.'*

From these incomplete and poorly written report , one could also observe that Yee's motivation to learn to teach is rather low.

Again, Yee wrote less in peer observation forms than her fellow classmates. She wrote brief comments for her peers:

"checking exercise with children is a good practice";

"discussion method could help illustration";

"questioning skill is good";

"teaching methods inadequate".

Yee wrote fewer self-evaluation reports than her fellow classmates but she seemed more involved when engaged in self-evaluation practice. Actually, she wrote valuable reflective comments in her self-evaluation forms when she was willing to do so. Yee was able to identify problems and to formulate ways for improvement. Data in Table 4 of 'Appendix G' illustrates briefly how she demonstrated such abilities. The following is one of these examples:

Class: 6A

Subject: Health Education

Date: 15 April 94

[identify a problem] -

"The lesson was unsuccessful. I've used too much time to answer students' questions."

[formulate ways for improvement]

"1. utilize more interesting activities;

2. provide more workcards for students to do;

3. invite students to ask questions during recess.

Yee limited her reflective content mostly to survival strategies. In her self-evaluation reports, she rarely reflected to a higher level or wider outlook. She continued to search for ways to survive better in her classroom, including the skill to control classroom disciplinary problem; the skill of effective instruction, etc.:

[week 1]

"I should have used 'blu-tac' on those teaching aids before the lesson started--this would benefit my classroom control."

"The class was too noisy. I should have announced some classroom rules beforehand."

"Next time I would try to use positive reinforcement to improve the disciplinary problem."

[week 2]

"Students couldn't catch my meaning. At the next lesson I shall use more pictures to help my explanation."

[week 3]

"I should pay attention to time control."

[week 4]

"After the lesson, I thought of three ways to improve the procedure of a successful experimentation lesson:

- 1. I should rehearse the procedure of the experiment before the lesson.*
- 2. I should demonstrate the procedure before students' trial.*
- 3. I should check all instruments before the lesson."*

Yee participated unwillingly in the lesson observation and peer observation practice. She wrote only four self-evaluation reports during PTP. Her indifference towards PTP practice might be a critical factor that hindered her personal growth professionally as well as reflectively. The clinical supervision on the fifth week of practicum suggested some clues to this problem; it could be seen that she had inadequate self-understanding and self-confidence towards her own teaching performance as well as instructional decision (Table 5.6):

(Table 5.6) Clinical supervision : Yee --supervisor's record

Yee (9 May 94)

For Yee, her primary six class presented one difficult problem -- they never responded to her and always remained silent. To better understand the problem, she tried to ask students' opinions directly. However, the class gave her disappointed reply. They said that they could understand the Chinese lesson by themselves when they read textbook and they did not need Yee to teach them. Yee then evaluated their actual learning conditions and her own teaching outcome by assessing students' homework, classwork or worksheets. But Yee felt that the class felt reluctant to do the exercises she assigned to them. Yee said that she had thought of using 'matching' or 'sequencing' activity to make her teaching more interesting but she was not sure if it would work. She said, *"I'm afraid that these activities might be too simple or childish for this class."*

Her insufficiency in self-understanding and self-awareness was further revealed when she said that she was not quite sure if her interest in teaching had increased or decreased after teaching practice. In Interview(II), when Yee was asked if she was clearer about her suitability to teaching, she said, *"Quite suitable...But to a certain extent I don't feel sure that I'm suitable."* She still felt unsure about her choice of career.

Jenny

The case of Jenny was very different from Yee.

Jenny wrote short notes for each item of observation and evaluation, for example:

A. The teacher

"clear speech";
"did not smile";
"she was always smiling"

B. Preparation

"lesson plan was not clearly set out";
"the tape script was a bit fast";

C. Teacher's performance

"the teacher was able to retain pupils' interest throughout the whole lesson";
"motivation is quite good";

D. Management

"the pupils were willing to participate in the class";
"the pupils were keen to learn";
"timing was good".

However, Jenny was eager to participate in peer observation practice. She observed her groupmates frequently and carefully wrote feedback for them. Many times she used extra pages, in addition to the standard form, to write personal opinions for her peers. The focus of comments and reflection suggested by Jenny were quite comprehensive. They represented quite fully the general methodology of teaching taught in the College. This demonstrated the fruitful learning outcomes of her training in the College. Here are the main aspects of Jenny's observations:

- *Teacher's voice, speech, pronunciation*
- *Teacher's content knowledge*
- *Teacher's verbal and non-verbal communication skills*
- *Questioning skill*
- *Skill of managing discipline in classroom*
- *Teacher's instruction and guidance*
- *Timing*
- *Use of teaching aids (wordcards)*
- *Organization of teaching activities (e.g. classroom discussion, presentation)*
- *Individual help provided for students*

Jenny showed her confidence and personal attitude towards teaching and learning when she gave constructive suggestions for her peers:

"Do try to tell the children knowledge about acid rain. They would be interested to know more."

"It would be good to ask pupils questions based on the things they know best(e.g. Karaoke, instant noodles, Sailor Moon)."

"Clear instructions should be provided before distributing the activity cards."

"Try to prepare titles and sub-titles with different colours---this would be effective to attract children's attention and interest."

(extracted from: Jenny's peer observation records)

Jenny's self-evaluation reports made evident that she has developed her professional intuition to a critical level of reflectivity. Her content of reflection, started right at the beginning of teaching practice, concentrated upon children's needs and learning situation and learning outcomes. This focal point represented Jenny's personal

concern; it also proved that she was professionally more mature than Yee or any of her groupmates:

Right from the first week of teaching practice, Jenny wrote the following remarks in her self-evaluation reports. She loved to see that her pupils were actually learning.

[week 1]

"The most rewarding thing must be the active participation of my pupils."

"Last lesson, I asked the pupils to collect information about the police. Today many of them have done as I said, and showed great interest! That's most rewarding."

Then we could see that Jenny continued to show such personal intent during the whole block of teaching practice. Instead of demanding that her children be absolutely 'well-behaved', she favored most students' attitude to learn:

[week 2]

"The lesson was quite successful since pupils have a positive attitude to learn."

"The most satisfactory part was that the pupils knew what 'photosynthesis' is."

"It's possible to allow pupils to speak more. It can build up their confidence."

Jenny identified some problems relating to her personal concern in the first week; she speculated the solution was to improve her own pedagogical content knowledge for teaching:

[week 3]

"I love this lesson very much. However, the most difficult thing was to judge whether a pupil's idea was correct or not. I have to 'arm' myself more!"

[week 4]

"The most rewarding thing was that pupils kept on asking me about the application method of a new library which means that the pupils are following my lesson. However, this also means that I need to brush up on my personal knowledge in this respect."

Jenny became more and more concerned with her pupils' learning needs and learning context by the last week of teaching practice:

[week 5]

"This topic seems to be closely related to their lives. So pupils have many opinions about it."

"Successful. Especially when I asked the pupils to think of traveling in space. They could give me many brilliant ideas and unusual thinking."

Gradually Jenny became more and more professionally openminded so much so that she was able to face her children with self-confidence and self-awareness. She was well-prepared to accept the children's praise and opinions.

[week 4]

"Maybe I should give the children 5 to 10 minutes to ask questions about the related topic."

[week 5]

"Well, the children said that they preferred listening activities. Maybe I would modify my instructional design."

"I felt extraordinarily exciting and satisfied when the children said that they appreciated my effort in preparing all those colorful and meaningful cuecards and workcards for them."

There is one point that needs to be clarified: though Jenny was child-centered; she would insist on her own instructional decision whenever she believed that it was necessary, for the benefit of her children. The clinical supervision on 19 April 94 demonstrated this point (Table 5.7).

Table 5.7 Clinical supervision: Jenny--supervisor's record

<p>Jenny (19 April 94)</p> <p>During the preconference, Jenny anticipated two problems for the lesson: (a) students might find vocabulary drilling session boring; (b) students would prefer teachers to use Chinese to teach English. To solve the problems, Jenny formulated two ways for improvement: (a) drill vocabulary by pair work which students would find interesting; (b) insist on using English as the medium of instruction and using simple English to help understanding.</p> <p>In the postconference, Jenny was satisfied that she had been successful. Students understood the English used. Her teaching objectives were achieved. Jenny evaluated the weakness of the lesson and reframed the solution: in order to reduce possible disciplinary problem caused by display of workcards, she would reduce the number of workcards and would use only the most relevant ones in the next lesson. For further improvement, Jenny would try to increase more chances for individual students to participate.</p>

From the postconference in the record above, it was apparent that Jenny had developed the ability of self-inquiry by the end of the teaching practice. The degree of her reflectiveness could be seen when she spelled out two main criteria for her judgment of the effectiveness of lessons conducted during the post-conference of the above clinical supervision: *"The first one is the learning condition of the students*

while the second one is the degree of achievement of my original planning."

One could conclude from this that Jenny had grown steadily in self-understanding and self-awareness after the PTP program. This was further demonstrated in Interview II when she pointed out that her conviction towards teaching was reaffirmed in a more practical way during teaching practice. She explained that in order to attain the objective of 'achieving satisfactory learning outcome', she had tried various kinds of teaching methods during teaching practice. She thought that the discovery method was an effective teaching strategy for primary children. *"Student would find learning significant if knowledge was built up by himself,"* she told the researcher during the interview.

Jenny's development and growth could be attributed to her willingness and hardwork in practising various practicum reflective behaviours such as identifying problem relating to teaching and learning, formulating ways for improvement, experimenting with ways for improvement, etc. Table 5 in 'Appendix G' shows Jenny's willingness and ability in this aspect.

Wong

Wong was another keen and diligent student teacher. She wrote similar points of evaluation as her groupmates in her lesson for analysis reports. For example:

- A. The teacher
 - "clear speech";*
 - "always smiling";*
 - "fluent speech"*
- B. Preparation
 - "lesson plan was well-prepared";*
 - "adequate teaching aids";*
- C. Teacher's performance
 - "teacher's guidance was clear and systematic";*
 - "motivation was quite appropriate";*
 - "good use of blackboard";*
- D. Management
 - "learning atmosphere was good";*
 - "good classroom discipline";*

Similar to Jenny, Wong wrote eagerly for her peers in the peer observation report forms. Instead of vague and brief shortnotes, she use long sentences to explain her viewpoints. She preferred to give clear and positive reinforcement for her classmates when they performed well. This might be due to her nice and friendly character:

"The teacher used experimentation to verify the existence of air; it was so successful that the students were interested to learn."

"Clear and appropriate speech; good use of body gestures; excellent use of eye contact."

"Good elicitation skill. The teacher could explain content knowledge clearly. The students could follow."

Even for poorer lessons such as Yee's, Wong would note down good points of her groupmates and give positive reinforcement,

"The teacher was kind. The learning atmosphere was comfortable."

"The teacher's handwriting was clear."

However, Wong never forgot to give advice. She was always helpful to her peers:

"It would be useful if the teacher would pay attention to class discipline next time."

"Try to ask students to close their books at the beginning of the lesson---this might be a good way to capture the students' attention."

"Ask the students at the back to answer questions. This might help to maintain classroom discipline."

Wong focused her comments and reflection on the following items in peer observation exercises:

Experimentation as a teaching activity
Classroom discipline and the teacher's managing skills
The teacher's voice, speech and non-verbal gesture
The teacher's explanation skills
The teacher's subject content knowledge
Blackboard writing and blackboard arrangement
The teacher's guidance and instruction

However, it was only from the self-evaluation practice that I noticed Wong's growth and personal discretion. Wong wrote sincerely and cautiously. From her careful writing, one could see that she was wholeheartedly engaged in evaluating her own teaching performance. Undoubtedly she was eager to seek self-improvement. And for this reason, we could see that she grew more and more professionally mature after teaching practice.

I have counted the frequency of the reflective content in Wong's self-evaluation. I found that Wong focused her self reflection to three main pedagogical procedures: classroom discipline; teacher's content knowledge and learning activities. The simple statistics in Table 5.7 below indicate this.

Table 1.7 Wong's content of reflection as shown in self-evaluation

Content of reflection	Frequency of Wong's self-evaluation
learning activities	10/14
classroom discipline	7/14
teacher's content knowledge	6/14

Wong focused her reflection on these three key elements as 'procedural strategies' as well as 'critical pedagogy'. Evidence from Wong's self-evaluation reports verify my judgment. Wong considered

these procedural strategies solely for the sake of children's learning needs.

The following are two examples which show how Wong experimented with the child-centered approach in her teaching in order to meet children's learning needs:

1. *"The children participated in the group discussion eagerly. They loved to share personal experiences in rearing small animals. I have verified that learning activity is better than direct teaching."*
2. *"The children loved this learning activity--Individual survey of parks and gardens near home. They collected lots of valuable information back to the classroom. This further convinced me that the Activity Approach is a valuable instructional approach."*

The following example shows how Wong related classroom management with children's learning:

"Poor classroom discipline interrupted the procedure of experimentation. So, in order to achieve effectiveness in classroom learning, I should repeat classroom rules next time before starting any activities."

The following example shows how Wong concerned with her own content knowledge for the reason of children's learning benefit:

"The lesson was boring. The children always dislike Chinese lesson. I should try to prepare more stories to teach those Chinese idioms next time."

Wong not only identified problems concerning these reflective content, she could also formulate, experiment with solutions and then evaluate the solutions. This reflective quality was rarely observed in

some of her groupmates. Table 3 in 'Appendix G' shows some clues to this aspect. Furthermore, the researcher would quote two examples from self-evaluation reports to verify the point:

Example 1 : Classroom discipline

[21 March 94 -- identified problem and formulated solutions]

"The children were interested but classroom discipline was not good enough. Next time I should use positive reinforcement or even punishment to help managing the problem."

[24 March 94 -- experimented solution, discovered the consequences and implication of solution and evaluate solution]

"Today I tried to be severe. I punished those at the back. Classroom discipline could be improved temporarily; however, the children became too quiet and seemed less interested and not so involved in the lesson."

[28 March 94 -- experimented with a solution, discovered the consequences and implication of the solution and evaluate various solutions]

"The class was cooperative and quiet. This was because I had used verbal positive reinforcement. The children love to be praised. This solution was more effective than punishment, I believe."

(extracted from: Wong's self-evaluation reports)

We could see that Wong tried two methods to control classroom discipline problem in this lesson. Finally, after evaluating the outcomes of the two different methods, she reframed the solution. She found out that positive reinforcement was more effective for teaching and learning. This ability and willingness to demonstrate the practicum self-evaluation behaviours mentioned above was classified as the valuable key thinking elements of critical reflective thinking. (Ross, 1990)

Example 7: Teacher's reflective knowledge

Wong's reflective ability to formulate, experiment with solutions and then evaluate the solutions could also be verified during the clinical supervision (see Table 5.8). Such qualities demonstrated her attention to 'procedural strategies' in the content of reflection.

Table 5.8 Clinical supervision: Wong -- supervisor's record

<p>Wong (20 April 94)</p> <p>During the preconference, Wong identified the problem of the lesson as being (a) students would remember their previous knowledge and (b) students would still love to shout out answers even when they knew that they should raise their hands before answering questions. She formulated one solution to the problem -- to try revise the classroom rules before the lesson started.</p> <p>Wong implemented her solutions in the lesson. She was successful in improving classroom discipline for the lesson. She further evaluated the solution and reframed the problem of classroom discipline. She said, "<i>I think that if a punishment is effective, it would help students to solve a specific behavioural problem.</i>" Hence she promised herself that she would become more conscious about the learning progress of every individual student.</p>

Wong's concern about the learning progress of individual students revealed her progression towards 'critical pedagogy'

Below is the second example from which Wong's three valuable professional qualities could also be observed--conscientiousness, responsibility and openmindedness. The last two qualities have been identified as characteristics of a 'reflective practitioner' (Schon, 1983).

Example 2 : Teacher's content knowledge

[26 April 94 -- identified problem and formulated solution]

"The children were interested in the lesson. Some of them asked questions relating to 'electric batteries'. Unfortunately I did not know the answer. I think that I ought to read more references to enrich my content knowledge."

[28 April 94 -- experimented solution and evaluate solution]

"I am more fully prepared with content knowledge when planning my lesson. Therefore I am acquainted with the background stories of various Chinese sayings such as '彈丸之地'. The children were so interested in these stories that their learning efficiency was enhanced. I would continue to improve my content knowledge."

Wong's development of reflective thinking hence was satisfactory.

3. Perspectives and levels of reflection

An important theme of this study was the changes in the perspectives and levels of reflection attained by the student teachers. For identification of the perspectives and levels of reflection of the six student teachers, two important questions were asked:

- (1) How did the student teachers reflect?
- (2) What was the purpose of their reflection?

The researcher adopted Valli's three approaches to reflection (1991): i.e. *cognitive, critical and narrative approach*. To answer the first question, it was necessary to find out whether the student teachers reflected technically, personally or critically. Student teachers who reflect at what van Manen (1977) called the "technical/ practical" level of reflection or Feiman-Nemser's (1990) "technological" orientation of reflection are described as adopting *the cognitive approach*. They do not examine the educational purposes or context factors in the reflection process. Student teachers who reflect with *the critical approach* stresses the questioning of the purposes, ends and aims of education. The approach helps teachers to examine the ethical, moral and justice issues in education. This equates with van Manen's "moral/ ethical" and "social/ political" levels of reflectivity or Feiman-Nemser's "critical" orientation of reflection. The main emphasis of the *narrative approach* is "on the teacher's own descriptions of the personal circumstances under which they make decisions" (Valli, 1992, p.151). This equates with Feiman-Nemser's "personal" orientation of reflection which focuses on the reconstruction of the self as a teacher. As explained by Valli, this narrative view is sympathetic with Schon's (1983 & 1987) notion of an "appreciation system" developed personally by the teacher himself. "The system contains the teacher's repertoire of theories, practices, knowledge, and values which influence

how situations are defined, what is noticed, and the kinds of questions and decisions teachers will form about particular actions.”(p.152) To simplify, as student teachers describe, reflect, analyse, and make inferences about classroom events, they are creating their own pedagogical principles.

To answer the second question, Clift et.al.(1990) perspectives on reflection are applied: *reflection as instrumental mediation of action*; *reflection as deliberating among competing views of teaching and reflection as reconstructing experience*. The main purpose of using this framework is to see if the student teachers reflect for the purpose of directing or controlling practice; or informing practice by deliberating and choosing among competing versions of good teaching or apprehending and transforming practice by reconstructing experience the end of which is a new possibility for action. In Clift’s words, the purpose of *reflection as instrumental mediation of action* is that the reflective process is used “to help student teachers replicate classroom practices that empirical research has found to be effective (Ibid., p.24).” In other words, this means that the purpose of reflection is *instrumental* in that student teachers would reflect how well the teaching theories they have learnt in the College could be applied in the act of teaching. *Reflection as deliberating among competing views of teaching* proposes reflection based on “deliberation and choice among competing versions of good teaching.”(Ibid., p.25) Student teachers who reflected with this perspective would deliberate among the competing views of teaching and examine each cautiously in the light of the benefit of student learning. *Reflection as reconstructing experience* means reflection would lead to new understandings of self-as-teacher, assumptions about teaching. It is “a process in which practitioners recast, reframe, and reconstruct past understandings in such a way as to generate fresh appreciation of the puzzlement in a practice situation.” (Ibid., p.27)

Analyses started with the case of Yetta.

Yetta

Yetta's reflective thinking followed the cognitive approach. As seen in the previous section, her reflection at the two beginning practicum exercises-- lesson for analysis (prior to teaching practice) and peer observation concentrated chiefly on technical issues such as presentation skills, usage of teaching aids, etc. Some other practical matters in classroom teaching such as class discipline were discussed. There was one common deficiency found in these two practicum exercises -- Yetta seemed to be too bound by the general methodologies of teaching she had learnt in the College.

Yetta's growth in her perspectives on reflection was more clearly demonstrated in the self-evaluation exercises, clinical supervision and her expression of post-PTP perceptions towards teaching at interview (Ib).

Yetta's five week self-evaluation demonstrated her over-riding concern with technical problems in teaching content, teaching pedagogy and learners. This could be seen in Table 5.9a:

Table 1.9a Yetta's perspective of reflection as shown in her self-evaluation records

week	What is the content of reflection?	How did student teacher reflect?	What is the purpose of reflection?
1	classroom management skills-- <i>"I will be firmer next time because classroom discipline was the worst thing in this lesson."</i>	Used the cognitive approach; Yetta reflected technically on the skills of managing classroom discipline.	Reflection as instrumental mediation of action: i.e. reflection in order to direct or control practice
2	teaching aids-- <i>"I have not prepared appropriate teaching aids to help explanation; this made my teaching content become too abstract."</i>	Used the cognitive approach; Yetta reflected technically on the necessity of using teaching aids in teaching.	Reflection as instrumental mediation of action
3	classwork assignment -- <i>"Students could not finish the work class. I would let them do something which is more simple next time."</i>	Used the cognitive approach; Yetta reflected practically upon the messy problems in classroom.	Reflection as instrumental mediation of action
4	classroom teaching skills-- <i>"I should use direct instruction instead of open discussion for this topic; that would be more effective."</i>	Used the cognitive approach; Yetta reflected technologically upon the most adequate classroom teaching skills for a topic.	Reflection as deliberating among competing views of teaching: i.e. reflection in order to inform practice by deliberating and choosing among competing versions of good teaching

week	What is the content of reflection?	How did student teacher reflect?	What is the purpose of reflection?
5	learners' learning needs-- <i>"Children loves role play; they became more supportive."</i>	Used the cognitive approach; Yetta reflected practically(as defined by Valli) about some ways to meet learners' learning needs.	Reflection as deliberating among competing views of teaching

This kind of reflection belongs to the cognitive approach which, as specified by Valli, focuses on the knowledge and processes involved in teacher decision making. Valli cited Shulman's (1987) six categorization of knowledge to explain; they were 'content', 'pedagogy', 'curriculum', 'characteristics of learners', 'contexts', and 'educational purposes, ends and aims'. Valli claimed that most cognitive teachers do not reflect deeply on the last two aspects of the knowledge base. So, from self-evaluation exercises, we could surmise that Yetta was still a cognitive reflective thinker. However, the researcher did notice that Yetta developed her reflectivity to a more mature loci. She no longer reflected solely for directing practice but for informing practices by deliberating among competing views of teaching by the fourth and fifth week of teaching practice.

In the clinical supervision held in the last week of the teaching practice Yetta was still thinking of ways to improve classroom management. However, we could see that she deliberated her reflection among competing views of classroom management (see Table 5.3 on p. 87). She formulated two ways for improving classroom disciplinary situation by "stricter instruction" and "more activities for students".

This shows an improvement in her reflective ability. Yetta was no longer restricted by "external authority" such as teaching theories learnt in the College as a source of knowledge. She could understand that such knowledge should be arbitrated through the actual context of the teaching situation. Her mode of knowing became deliberative and relativistic. The knowledge learnt in the College was to inform practice, not to direct or control it.

Yetta's growth was quite obvious when she had the opportunity to spell out her personal thinking about teaching after the teaching practice. In the post-teaching practice interview (i.e. Interview Ib), the researcher discovered that Yetta was able to reflect in both the critical and narrative approach.

The interview revealed that Yetta had tried to examine the moral issues in primary education. In contemplating the issue carefully, she said,

"I find that children nowadays have little opportunity to think and reflect about their moral conduct. They always play gameboys, read comics; they are quickly but deeply influenced by mass media. They seldom make a conscious effort to reflect. I am really worried about them. This encourages me to carry out a plan that could help them to contemplate more about life...."

(Interview Ib)

Then, Yetta actually tried out a plan to help children to think about the issue:

"I once shared some religious stories with primary six classes. Then I ask them to write down some of their thoughts on a few questions on a worksheet. I tried to give feedback and comments on each paper. This encourages them to read and think."

(Interview Ib)

And, Yetta seemed satisfied with her experimentation.

She said proudly,

"I believe that somehow this is a way to implement moral education for primary students."

(Interview Ib)

In this way, Yetta tried to go through a process of reframing and reconstructing past understandings and experiences in such a way as to generate fresh appreciation of the puzzlement she had about moral education in a real classroom situation. She successfully verified her personal understandings and beliefs in a real context of practice situation. She reconstructed experience as she reflected. This led to her new understanding of what Valli claimed 'self-as-a-teacher':

"A teacher should teach not only book knowledge; she should be prepared to share with her students life experiences, human rights and responsibility, personal attitudes and morality."

(Interview Ib)

"If I were their regular teacher, I would spare more time, maybe one period a week to share moral concepts and moral judgments with children. I believe that this is the most important educational objective of teaching."

(Interview Ib)

The following table summarizes Yetta's development of personal theory.

(Table 1.9b) Yetta's perspective of reflection as shown in her description of personal theory

What is the content of reflection?	How did the student teacher reflect?	What is the purpose of reflection?
moral education of children	<p>Using the critical approach, Yetta examined moral issues in primary teaching.</p> <p>Then, by recasting her personal understanding of the issue, she formulated fresh personal apprehension in a real context. In this way, she also experienced reflection in the narrative approach.</p>	<p>Reflection as reconstructing experience</p> <p>i.e.</p> <p>reflect to appreciate or apprehend practice by reconstructing experience the end of which is a new understanding of:</p> <p>(a) the puzzlement of moral education in a real action situation;</p> <p>(b) self-as-a-teacher--the role of a teacher in moral education for primary children.</p>

Yetta's effort helped her to reorganise experiences for fresh and real apprehension. Subsequently, she demonstrated the thinking processes of a potential (what Schon described) 'reflective practitioner'. Provided that she carried on with her keen reflection, she would continue to build up her "appreciation systems"(Schon, 1983).

From the lesson for analysis observation reports and peer observation reports, it can be seen that Kin's perspective of reflective thinking followed the cognitive approach. The focus of reflection was on technical and practical areas such as class discipline, learning activities, blackboard usage, teaching skills, teaching aids, etc.

During the five weeks' teaching practice, Kin has frequently conducted self-evaluation adopting the cognitive approach. He was most concerned with classroom management skills. The technical problem of class discipline restrained his reflection to a lower conceptual level. This could be seen in Table 5.10.

Table 5.10 Kin's perspective of reflection

week	What is the content of reflection?	How did the student teachers reflect?	What is the purpose of reflection?
1	classroom management skills-- e.g. <i>"Students talk all the time. I would mention classroom regulation next time."</i>	Used the cognitive approach. Kin reflected technically on the need to improving classroom management.	Reflection as instrumental mediation of action
2	classroom management skills-- e.g. <i>"Too many teaching aids! This causes confusion and disciplinary problem."</i>	Used the cognitive approach. Kin reflected technically on the cause of disciplinary problem.	Reflection as instrumental mediation of action

Table 1.10 (cont.) Kin's perspective of reflection

week	What is the content of reflection?	How did the student teacher reflect?	What is the purpose of reflection?
3	classroom management skills-- e.g. <i>"Too much reliance on lesson plan! This affects classroom management."</i>	Used the cognitive approach. Kin reflected technically, still, on the influence of trivial classroom behaviour on the effectiveness of classroom management.	Reflection as instrumental mediation of action
4	classroom management skills-- e.g. <i>"My timing of this lesson is too bad. Class gets into chaos by the end of the lesson."</i>	Used the cognitive approach. Kin continued to reflect technically on the cause of poor classroom discipline.	Reflection as instrumental mediation of action
5	classroom management skills-- e.g. <i>"I wonder whether punishment or positive reinforcement is more effective? Which principle should I choose to manage my students' disciplinary problem. I have to try hard to find the solution."</i>	Used the cognitive approach. Kin reflected technically but based on the intention to deliberate and choose among competing versions of good classroom management skills.	Reflection as deliberating among competing views of teaching

Although Kin's self-evaluation reflective thinking was very much limited to the cognitive approach, we could see that he gradually extended himself to the perspective of deliberating among competing views of classroom management. By paying attention to the context of an actual educational situation and the consequences of various versions of classroom management skills, he developed a more eclectic

view of knowledge. Hence, he formulated a number of methods of good classroom management techniques. These include:

- stop activities if any unruliness arises;
- less reliance on lesson plan;
- better timing of lessons;
- discuss disciplinary problems with students during recess;
- state rules and regulations before activities;
- use punishment;
- use positive reinforcement.

As revealed in the clinical supervision on 17 April 1994, we could not say that Kin was successful in formulating an effective appreciation system of managing classroom discipline during teaching practice. However, Kin was starting to search for a strategy that suits himself when he said,

"I wonder if punishment or positive punishment is more effective?....I have to try hard to find out the solution."

(self-evaluation report)

Actually Kin grew professionally during teaching practice. He showed obvious improvement in his dimensions of reflectivity.

He exemplified his critical as well as narrative view of education in interview(Ib):

"Adults (teachers and parents included) always love to impose their ways of thinking onto children. They never try to truly understand their children."

"I would try my best to provide opportunities for children to work on their own and to learn by themselves. Learning by doing is most effective."

(Interview Ib)

Nobody would expect that Kin, a young man who once opposed the child-oriented activity approach in education (as seen in pre-interview II), changed dramatically to become an advocate of the child-centred philosophy. He even proposed replacing schooling by designing 'simulated educational environment' for children to learn naturally and practically. Such a conception represents Kin's breakthrough in reconstructing taken-for-granted assumptions about teaching.

This is another conception of reflection as the reconstruction of experience as proposed by Valli (1990, p.31). Kin began with the traditional views of the social, political and cultural conditions of the existing education system. He later transformed his understanding of these social and institutional constraints on education and tried to search for possible solutions.

Ling

Ling's performance in the lesson for analysis and peer observation was similar to Yetta's. She reflected technologically. Technical items such as instruction, teaching aids, lesson planning and classroom discipline were the main areas of her reflection.

Like her groupmates, Ling showed greater improvement in her reflectivity during self-evaluation. However, as shown in Table 5.11, her reflection in this practicum exercise still followed the cognitive approach.

Table 5.11 Ling's perspective of reflection

week	What is the content of reflection?	How did student teachers reflect?	What is the purpose of reflection?
1	classroom management skills-- <i>"I believe that I have to control well classroom discipline before starting to teach anything. Otherwise all efforts are in vain."</i>	Used the cognitive approach. Ling reflected technically on the need to improving classroom management.	Reflection as instrumental mediation of action
2	teaching content-- <i>"I should not spend too much time on practising vocal accuracy. I should prepared some more interesting short songs for next lesson."</i>	Used the cognitive approach. Ling reflected technically on the subject content of music teaching.	Reflection as instrumental mediation of action

(Table 1.11, cont.)

Ling's perspective of reflection

week	What is the content of reflection?	How did student teacher reflect?	What is the purpose of reflection?
3	teaching content -- <i>"Children are not too acquainted with rhythm; I would spend more effort and timing on this next time."</i>	Used the cognitive approach. Ling reflected technically, still, on the subject content of music teaching.	Reflection as instrumental mediation of action
4	teaching skills -- <i>"Children couldn't sing music with words well, next time they need more practice."</i>	Used the cognitive approach. Ling reflected technically on skills of music teaching.	Reflection as instrumental mediation of action
5	teaching skills -- <i>"Teacher's demonstration of the way to convert sound might be useful."</i>	Used the cognitive approach. Ling reflected technically on a better way to teach music to primary children.	Reflection as instrumental mediation of action

It could be observed that Ling's reflection within the five weeks of teaching practice, as shown in the self-evaluation practice, centered chiefly on teaching content and pedagogy. She reflected mainly for directing practice. Her focus of reflection was almost entirely related to music teaching. This showed that being a student teacher of the music elective, which was a 'harsh subject' as Ling and most classmates claimed, Ling felt 'pressed' to struggle hard to achieve a satisfactory standard. Maybe for this reason, Ling's reflectivity was constrained to the cognitive approach. And for the same reason, Ling's purpose of reflection is instrumental in that the reflective process was used to help her apply the knowledge learnt for music teaching in College within the context of actual teaching situation.

External authority-- music elective in College with its strict requirements-- is regarded as a vital source of knowledge. Ling could hardly free herself from this powerful source of knowledge. With little consideration of the context, her mode of knowing was technological rather than deliberative. This might be one of the reasons why Ling smiled and was a bit nervous and felt stressful all the time during the teaching practice.

In the clinical supervision on 9 May 94 (Table 5.12), Ling still reflected in the cognitive approach but she started to show her ability as well as willingness to deliberate her reflection among competing views of teaching. This might be because it was held after a Chinese lesson for primary one children.

Table 1.12 Clinical supervision: Ling -- supervisor's record

Ling (9 May 94)
Ling identified that primary one students were more active. To formulate ways for improvement, Ling thought of two possible solutions during the preconference:
(a) using role play and demonstration activities;
(b) lively questioning concerning living conditions of children to teach new Chinese words.

Subsequently Ling experimented with these ways of improving her teaching. She was successful in involving students in the learning process. Pedagogy and subject content learnt about Chinese teaching in College (i.e. the external authority) was still regarded as a source of knowledge, however, it was obvious that 'context' was taken into consideration. Ling cautiously noticed the learning characteristics and needs of her little children as well as the effectiveness of different competing versions of good Chinese teaching before planning appropriate instructional design for this Chinese lesson. Consequently,

she found herself successful and satisfied. She said happily during the postconference, *"I see that they are keen to participate. They are eager to raise their hands..."*

Quite surprisingly, Ling showed her potential for reflection to a higher conceptual level in the post-interview(II). It seems that Ling discovered and created her personal strategy to solve her own problems in teaching primary children during the teaching practice.

Ling taught mainly lower primary classes during the Teaching Practice. By constant reflection through experience, she developed effective management methods for lower primary teaching gradually. From her experience and reflection, she explained that teaching young children should start with attracting their attention. The teaching procedures should be well planned, clear and systematic. It was necessary to carry out suitable repetitions with different teaching activities. The cognitive characteristics of young children should be taken into consideration when designing a lesson. Ling quoted the example of 'irreversibility' of lower primary children. To help children to transfer learning of simple concepts, Ling successfully integrated theory into practice by trying various methods. These include conducting clear demonstrations with the help of attractive teaching aids using a variety of learning activities, rest time and classwork; real objects; involvement of children's demonstration by body motions; teaching through popular songs, comics and short rhymes, etc. Ling said that these teaching ideas were the outcomes of her reflection.

These pedagogical principles, quite different from any knowledge from external authority, was within Ling's interpretive frames or what Valli claimed as "appreciation system". Ling used them personally to understand and improve her own classroom practices. Ling actually had experienced the essence of the 'narrative approach to

reflection'. Though the principles were no great educational findings, they were the new understanding gained by Ling herself through reflection by reconstructing experience and knowing in actual teaching context.

Moreover, Ling reflected in the 'critical' approach as well. This was also revealed in interview(Ib) when she discussed the unstable future political environment. Facing possible changes in the teaching environment in future, Ling reflected on herself as a teacher. She said,

"Preparing for change is necessary for every teacher. This is a must if what I would do or change is for the sake of my students."

(Interview Ib)

Ling added,

"As my teaching environment changes, I might modify my philosophy for teaching. Yet love, reflective thinking, positive attitude, openmindedness, farsightedness and patience should be the necessary qualities for me as a teacher, especially in view of the changing future."

(Interview Ib)

It was most delightful to find that Ling had reconstructed her own conception of self-as-a-teacher. It seemed that she was able to transform her understanding of the changing life of teaching in the future, with confidence and critical reflectivity.

Unlike her groupmates Yee was not keen to participate in lessons for analysis and peer observation exercises. Her reflective perspectives in these two practices were also technical. Yee participated more eagerly in the self-evaluation practice but she showed that she could scarcely reflect on a higher conceptual level. During the five weeks of teaching, she reflected with the intention of searching for ways to survive better in her classroom. These included methods to manage classroom discipline, effective explanation skills, time control, appropriate procedure of conducting experiments, etc (Table 5.13).

Table 5.13 Yee's perspective of reflection

week	What is the content of reflection?	How did the student teacher reflect?	What is the purpose of reflection?
1	classroom management skills-- e.g. <i>"The class was too noisy. I should have to announce classroom rules beforehand."</i>	Used the cognitive approach. Yee reflected technically on the need to improve classroom management.	Reflection as instrumental mediation of action
2	explanation skills-- e.g. <i>"The students couldn't catch my meaning. Next lesson I shall use more pictures to help them understand."</i>	Used the cognitive approach. Yee reflected technically on ways to improve her elicitation skills.	Reflection as instrumental mediation of action
3	time control-- e.g. <i>"I should pay attention to time control. This affects classroom management."</i>	Used the cognitive approach. Yee reflected technically on the need for time control.	Reflection as instrumental mediation of action

Table 5.13 (cont.) Yee's perspective of reflection

week	What is the content of reflection?	How did the student teachers reflect?	What is the purpose of reflection?
4	<p>procedure of experimentation-- e.g.</p> <p><i>"After the lesson, I thought of three ways to improve the procedure of a successful experimentation lesson:</i></p> <ol style="list-style-type: none"> <i>1. I should try to rehearse the procedure of the experiment before the lesson.</i> <i>2. The teachers should demonstrate the lesson before the students experimented.</i> <i>3. I should check all instruments before the lesson.</i> 	Used the cognitive approach. Kin reflected technically on the ways to improve an experimentation lesson.	Reflection as instrumental mediation of action
5	<p>classroom management skills-- e.g.</p> <p><i>"The students sitting at the back were too talkative. I shall talk to them at recess to find out the problem.</i></p>	Used the cognitive approach. Yee reflected technically the way to solve classroom disciplinary problem.	Reflection as instrumental mediation of action

We could notice that Yee's self-evaluation process followed the cognitive approach. Her reflection was chiefly for directing her teaching behaviours. During the five weeks, there was no trace of improvement in her perspectives for reflection, nor could she develop adequate self-confidence and self-understanding when teaching

primary children. This point was clearly shown in the clinical supervision on 9 May 94 (see Table 5.14).

Table 5.14 Clinical supervision: Yee --supervisor's record

Yee (9 May 94)

It was a Chinese lesson for primary six students. Yee seemed to lose direction and became helpless in the classroom. She couldn't understand why the students kept silent and did not participate. During the post-conference, she murmured doubtedly about some possible causes of the students' poor response: Was the problem in her presentation skills? or was the assignment too simple for them? or were the activities inappropriate? or the content knowledge unattractive?

"The students said that they could understand the lesson by reading textbooks themselves. It seems that they don't need me," she said with disappointment.

It was observed that Yee found it hard to deliberate among the knowledge related to teaching and learning that she had learnt in College to help her to improve. Obviously, Yee was at the lower conceptual level of reflection. Even in interview (Ib) held at the end of the teaching practice, she revealed her reliance on 'external authority/influence' as the core source of knowledge to control self decision on teaching:

T: Have you any personal theories about teaching?

Yee: Teaching does not mean discussion about teacher quality only; it means being concerned about students' emotions and students' learning outcome.

T: How did you attain this personal theory?

Yee: A supervisor told me that. Afterward, I became aware that I have ignored the students' learning outcome as the most critical thing when designing my teaching plan.

(Interview 1b)

Yee relied on the College supervisor's direct instruction for self reflection and improvement. This again implied that her perspectives on reflection remained at that of 'reflection as an instrumental mediation of action'.

Wong

Wong's performance in the lesson for analysis and peer observation was similar to Yetta. She reflected technologically. Technical items such as voice and speech, blackboard arrangement, explanation skill, gesture and classroom discipline were her main targets of reflection.

Wong's growth in her perspectives on reflection could be noticed in the self-evaluation exercises and her disclosure of post-teaching practice attitude during interview(Ib). Wong's five weeks' self-evaluation demonstrated her chief concern for classroom discipline, learning activities and the teacher's content knowledge. Examples are shown in Table 5.15. It can be seen that Wong showed her growth in her loci of reflection gradually.

Table 5.15 Wong's perspectives of reflection

week	What is the content of reflection?	How did the student teachers reflect?	What is the purpose of reflection?
1	<p>classroom management skills-- e.g.</p> <p>(a) <i>"The class was too noisy. I should be firmer next time."</i> (20 Mar 94)</p> <p>(b) <i>"The class was cooperative and quiet. This was because I used verbal positive reinforcement. Children love to be praised. This solution was more effective than punishment, I see."</i> (22 Mar 94)</p>	<p>(a) Used the cognitive approach. Wong reflected technically on the need to improve classroom management.</p> <p>(b) Used the cognitive approach. Wong reflected technically and discovered a better way to control classroom discipline.</p>	<p>(a) Reflection as instrumental mediation of action</p> <p>(b) Reflection as deliberating among competing views of teaching.</p>
2	<p>classroom management skills-- e.g.</p> <p><i>"The students were entirely involved in the learning activities for this lesson. They were cooperative, and talk little in class. Significant learning activities seem to be another effective way to manage classroom discipline."</i></p>	<p>Used the cognitive approach. Wong reflected technically and discovered another ideal way to control classroom discipline.</p>	<p>Reflection as deliberating among competing views of teaching</p>

Table 5.15 (cont') Wong's perspectives of reflection

3	<p>learning activities-- e.g. (a) <i>"I noticed that students love to talk about their own living experience. This lesson was successful--the students reported happily about the parks near their living areas."</i> (17 April 94)</p> <p>(b) <i>"Students could learn actively and eagerly in group work. Today they learnt a lot when observing different kinds of Hong Kong money together."</i> (20 April 94)</p>	<p>(a) Used the cognitive approach. Wong reflected technically on the effectiveness of one type of student-centred learning activities--report of self experience.</p> <p>(a) Used the cognitive approach. Wong reflected technically on the effectiveness of another kind of student-centred learning activities--group observation.</p>	<p>Reflection as deliberating among competing views of teaching; Wong reflected in order to inform herself on the effectiveness of different kinds of student-centred learning activities.</p>
4	<p>teacher's content knowledge-- e.g. (a) <i>"When students asked me more about 'electric cells', I didn't know the answer. I think that I ought to enrich my own content knowledge more fully next time."</i> (29 April 94)</p> <p>(b) <i>"Children were so interested in the background stories of various Chinese wordings such as '彈丸之地' and '一諾千金', etc. that their learning efficiency was enhanced. I would continue to improve</i></p>	<p>Used the narrative approach. Wong reflected critically on the need to improve a teacher's content knowledge.</p>	<p>Reflection as reconstructing experience; she reflected to apprehend or appreciate the understanding of self-as-a-teacher.</p>

	<i>my content knowledge for this reason."</i> (2 May 94)		
5	teacher's content knowledge-- e.g. <i>"Students at the back were too talkative. I shall talk to them at recess to find out the problem."</i>	Used the cognitive approach. Yee reflected technically on the way to solve the classroom discipline problem.	Reflection as instrumental mediation of action

Wong focused her evaluation on three reflective content: classroom discipline, learning activities and the teacher's content knowledge. It was not difficult to see that Wong emphasized these three reflective items mainly for enhancing the children's learning. By deliberating among different versions of classroom disciplinary management skills and learning activities, Wong transformed new understandings of herself as a teacher within the action situation in real classroom teaching. Wong believed that a teacher should bear the responsibility to explore all possibilities to help the children's learning.

From her discussion on personal theory towards teaching during interview(Ib), it can be seen that Wong reflected in the narrative approach. Her concern was the children. She said,

"We should treat children as persons. We should not see a class as a class but as 35 individual students who have different needs and characters."

"As teachers, we should be sincere and try to show concern for every child in his study and his spirit."

"Teaching does not mean discussing teacher quality only; it means being concerned about the students' emotions and learning outcome."

(Interview Ib)

Jenny

Jenny adopted the cognitive approach in the lesson for analysis practices. She concentrated on technical teaching matters such as :

"lesson planning is quite good."

"timing is poor."

"clear speech and appropriate intonation."

"motivation is good."

(Lesson for analysis reports, Jenny)

As stated earlier, Jenny participated fully the peer observation practice. Unlike her groupmates, she used extra pages to write more ideas to help her peers. Her suggestions were quite constructive and comprehensive. They were mostly skills and teaching methods learnt in College. In the peer observation records, Jenny covered most of the content taught in the core curriculum of 'general methodology', for example:

- . *Teacher's verbal and non-verbal communication skills*
- . *Questioning skills*
- . *Skills of managing disciplinary problem in classroom*
- . *Teacher's presentation skills*
- . *Management of instructional media*

As the examples showed, Jenny's content of reflection for the peer observation practice was still technological and was in line with cognitive approach for reflection. However, from the productive suggestions she gave her peers, the researcher observed Jenny's personal originality towards teaching and learning. She exhibited personal ideas of vivid instructional design in her reflective opinions:

"It would be good to ask pupils questions based on the things they know such as Karaoke, instant noodles, Sailor Moon."

"Try to prepare titles and sub-titles with different colors -- this would certainly attract children's attention and interest."

Most preservice teachers tend to follow quietly and stubbornly the teaching theories and methods learnt in College but fail to think of or try out their own ideas for classroom teaching. Jenny had sounded out her interpretive frames for improving classroom practices. Such an experience was the essence of the narrative approach to reflection. It was most inspiring to see Jenny's potential here.

Jenny further displayed her narrative approach for reflection during the five-weeks self-evaluation practices. She continued to assert her personal decision (as a teacher) that children's learning should be the prime target of teaching. By deliberation and choice among different versions of good teaching, she reflected eagerly to inform herself on the ways to achieve it. By reconstructing understanding of action context and her individual's view of herself as a teacher, she reflected diligently to transform and restructure this personal perception and knowledge about teaching. The researcher tried to summarize Jenny's efforts in the following table:

(Table 5.16) Jenny's perspective of reflection

week	What is the content of reflection?	How did the student teacher reflect?	What is the purpose of reflection?
1	Children learning -- e.g. <i>"The most rewarding thing for every lesson is the students' active participation in learning."</i>	Used the narrative approach. Jenny reflected on her own descriptions of "the most rewarding thing for every lesson"-- children's active participation in learning.	Reflection as deliberating among competing views of teaching. Jenny determined that children's learning was the only target for teaching.
2	Children's attitude to learning -- e.g. <i>"The lesson was quite successful since the pupils have a positive attitude to learn."</i> <i>"I allowed the children to speak more. This can build up their confidence in learning."</i>	Used the narrative approach. Jenny reflected on her own descriptions of "a successful lesson" -- children could develop positive attitude in learning.	Reflection as deliberating among competing views of teaching & as reconstructing self-as-teacher. Jenny restructured her view of a successful lesson as one that could enhance children's confidence in learning. This was more important than any other factors such as classroom discipline or academic achievement in her own interpretive framework.

(Table 5.16, cont') Jenny's perspective of reflection

week	What is the content of reflection?	How did the student teachers reflect?	What is the purpose of reflection?
3	<p>Teacher's personal pedagogical content knowledge in relation to the children's learning outcome--</p> <p>e.g.</p> <p><i>"I love this lesson very much. Children learnt actively. However, the most difficult thing was to judge whether a pupil's idea was correct or not. I have to enrich my content knowledge more."</i></p>	<p>Used the narrative approach. Jenny reflected on her own recognition that teacher's personal content knowledge is a vital factor in promoting children's learning.</p>	<p>Reflection as reconstructing self-as-teacher.</p> <p>Jenny focused reflection on the individual's view of herself as a teacher. A fully 'armed' teacher (in Jenny's words) was indispensable to enhancing children's learning.</p>
4	<p>Children's learning context --</p> <p>e.g.</p> <p><i>"That's a topic closely related to their daily living. So pupils have many opinions to offer."</i></p>	<p>Using the narrative approach; Jenny reflected on her own recognition that teacher's concern for children's learning context is another vital factor in promoting children's learning.</p>	<p>Reflection as reconstructing self-as-teacher.</p> <p>Jenny focused reflection on the individual's view of herself as a teacher. A fully 'armed' teacher (in Jenny's words) should be aware of the learning needs of the children in their living context.</p>

(Table 5.16, cont.) Jenny's perspective of reflection

week	What is the content of reflection?	How did the student teacher reflect?	What is the purpose of reflection?
5	Teacher's personal temperament in relation to children's learning-- e.g. <i>"Well, the children said that they preferred listening activities. Maybe I should modify my instructional design."</i>	Used the narrative approach. Jenny reflected on her own recognition that teacher's good temperament such as open-mindedness was another vital factor in promoting children's learning.	Reflection as reconstructing self-as-teacher. Jenny focused reflection on the individual's view of herself as a teacher. An open-minded teacher with adequate self-confidence and self-awareness was ready to accept children's criticisms. This was essential for children's learning.

Jenny reflected narratively and confirmed her personal view as a teacher that children's learning was the ultimate goal for teaching. She continued to reflect and reframe this understanding in view of the context. The researcher observed this from Jenny's experience in the clinical supervision on 19 April 94:

(Table 5.17) Clinical supervision: Jenny -- supervisor's record

<p>Jenny (19 April 94)</p> <p>Jenny identified the problem for this English lesson that students preferred teachers to use Chinese to teach English. However, Jenny insisted on using English as medium of instruction and using simple English to help understanding.</p>
--

The researcher saw that although Jenny was child-centered, she insisted her instructional decision that English had to be the medium of instruction for English lessons. When she faced the challenge in the real life situation, she noticed that she had to sacrifice the children's preference for Chinese teaching. Still, that was for the learning benefit of children. Persistence and adaptability are the characteristics of a reflective practitioner. She would continue her reflective dialogue within the actual context, then restructure her appreciation system with open-mindedness and responsibility. In this way, she carried on the reflective cycle with a narrative approach.

In the post-teaching practice interview(Ib), Jenny showed her capability for reflecting in the critical approach. When discussing important teaching strategies, Jenny spelt out her concern for the moral teaching of Hong Kong children. She said that a teacher should respect her students' rationality but at the same time she noticed that children, particularly those in lower primary, needed clearer instruction and concrete input of right and acceptable behaviour. She added,

"Although children like to express their reasons, they hope to learn what is right and what is wrong. The moral education advocated by Western countries is inadequate for Hong Kong children. A more directive type of moral teaching is needed for primary students. I appreciate Chinese morality such as '禮'、'義'."

(Interview Ib)

Jenny had engaged herself into a process of reconstructing past understandings and experiences about moral education in such a way that she arrived at a more mature conclusion. She would not adopt the view that western morel teaching concept such as 'value clarification' was wholly suitable for children in Hong Kong. She preferred to input some kinds of Chinese morality. This led to her new apprehension of self-as-teacher for moral training in primary schools.

4. Development of Personal Theories

Concerning the study of personal theories of student teachers, Holly and McLaughlin(1989) suggest that charting the themes and shifts in interpretation given by a student teacher over time will reveal rich information about their changing personal theories. In accordance with this suggestion, the researcher studied the growth of personal perception and theory of student teachers towards teaching.

By comparing data collected in pre-PTP interview and post-PTP interview, tangible evidence could be obtained. All the student teachers did mature professionally up to a certain degree after PTP but individual differences were clearly seen.

Before the teaching practice, the student teachers were quite immature and uncertain in their perception and theory towards teaching. They gave vague, broad and general terms about teaching in pre-PTP interview (I). However, all of them could describe teaching with more specific and concrete ideas in the post-interview(I). Most of them had matured professionally to a certain extent. All six student teachers had developed their personal theory to teaching and learning, though at varying degree. The researcher would analyze this finding in the following sections.

Yetta

Yetta's pre-PTP perception was typical; *"Teaching is mainly concerned with teaching from books,"* she said uncertainly when being asked about her perception of the teaching profession. She was also not quite sure about what the most important strategy and principle for primary teaching was. She thought that primary teaching is *'not so difficult'*. She was not quite sure if a primary teacher should be *'firm or even strict'* or *'kind'*. She could not suggest any answer to the question of *'personal theory'* during pre-PTP period.

Yetta grew up professionally after the PTP program. Her perception became more concrete and mature. She no longer felt that teaching meant teaching of knowledge only. She believed that teaching is a two-way process, the teacher and students have to communicate efficiently. Both students and teacher have responsibility for effective learning. *"Students should try to learn and respond to the teacher if he is wrong; the teacher then should be open-minded enough to listen, then reflect and improve."*(post-interview I) Teaching and learning is cyclical in which both the teacher and the learner should be active.

Yetta discovered a more concrete and clear strategy and principle in teaching primary children. She understood that lower primary teaching was different from upper primary teaching. She suggested several useful principles for the two kinds of teaching. *"When you teach lower primary children, you have to teach the content more concisely,...Firmer rules should be set firmer for little children. For upper primary children, the teacher should let them voice their opinions. Classroom atmosphere could be freer...."*

Yetta was able to develop her own personal theory about teaching after PTP. Previously she had had no ideas. By now she could tell the researcher with confidence that she was prepared to share her life experiences with her students, and discuss human rights and responsibilities, personal attitudes

and morality. Yetta confirmed further that moral education was the most important educational objective of teaching.

Ling

Ling's perception of teaching was not mature as indicated in pre-PTP interview(Ia). She explained her perception in vague terms, "*Teaching is done by teachers. Learning is carried out by students.*" The most important strategy and principle for primary teaching, as Ling perceived in her first impression, was '*to teach students in a way so that they could understand what I teach.*' However, she was not quite sure what should be the suitable teaching method to achieve this end. She speculated that '*different children might need different ways of teaching*'. After PTP, she could express a more mature perception. She no longer believed that teaching is purely the transmission of book knowledge. She gave two particular views of teaching: firstly, teaching should transmit 'life knowledge' that is relevant to students' living needs; secondly, teaching should include helping students to acquire common communication skills necessary for developing interpersonal relationship.

The most important strategy or principle in teaching primary children, as Ling believed after PTP, became more concrete, precise, well-developed and systematic. Ling mainly taught lower primary classes during TP, thus she could develop effective management methods gradually. From her experience and reflection, she explained that teaching young children should start from attracting their attention, then clear and systematic teaching procedures should be well planned. It was also necessary to have suitable repetition with different teaching activities. The cognitive characteristics of young children should be taken into consideration when designing a lesson. Ling quoted the example of 'irreversibility' of lower primary children. To help children to transfer learning of simple concepts, Ling successfully integrated theory into practice by trying various methods. Ling validated this valuable learning outcome, again, to the consequence of her continuous evaluation and reflection.

Ling's personal theory about teaching, developed from her teaching practice experience in primary one, is that 'patience and love' are the cornerstone of good teaching.

Wong

Wong participated keenly in the PTP. Before teaching practice, Wong's personal perception towards teaching meant '*teaching knowledge to students*'. She speculated that the most important strategy and principle for primary teaching was 'teacher-pupil relationship'. However, she could hardly suggest any strategy to attain such principle. Wong's strategy and principle for teaching primary children became more concrete and clear after teaching practice. Still, she believed in '*concern and care*', '*close relationship between teacher and students*' but now she learned from trial and reflection that "*before building close relationship with the children, I have to let them know clearly that I **am** a teacher.*" She knew that she would show care and concern for the children, but when necessary she would use her authority as a teacher.

Kin

Before teaching practice, Kin's perception of teaching was '*teaching is a boring job.*' He admitted that he would choose a government post after graduation. Kin thought that the most important strategy and principle for primary teaching is to let children learn to obey regulations and discipline first. He advocated that 'physical punishment' should be allowed. His reason behind this belief was that children today were too naughty. His behaviourist view of teaching led him to think that the Activity Approach was 'not so practical'. Actually he had some misconceptions of the Activity Approach. He thought that it was neither feasible nor meaningful. He said that it would only let primary students talk noisily and voice stupid opinions. So, to him the Activity Approach was time-wasting and could cause serious classroom disciplinary problem. Kin further explained his personal philosophy for teaching and learning,

"Firm teachers bring up excellent students, I believe. Nowadays the child-centered approach makes teachers lose dignity and authority, and students lose self-control. Children are spoiled."

(Interview 1a)

Kin's perception towards teaching and learning changed quite dramatically. He gradually learned to love teaching children. He no longer believed in physical punishment. He claimed that teachers and adults should respect and trust children:

"Adults always love to impose their ways of thinking, their likes and dislikes onto children. They never try to truly understand their children."

(Interview 1b)

Actually he became an advocate of the child-center theory. His personal theory for teaching is to abandon schooling, *"Simulated educational environment should be established for children to work, experiment and learn naturally as well as practically."* (Interview 1a) He expressed his resolution to establish a youth center himself in order to try out this personal theory.

Jenny

Jenny was a "successful" case. Her perception towards teaching before PTP already reflected her professional quality. She could describe concretely and concisely her own view about teaching. She claimed that *'teaching is a work of conscience'* and she said,

"A good teacher should be one who always works hard for his students even when there's no supervisor checking or assessing his performance."

(Interview 1a)

Jenny revealed her humanistic view of teaching children when she explained her personal theory as well as principle for teaching. Jenny thought that the most important strategy and principle for teaching primary children

should be 'kindness' and 'sympathy'. She pointed out that the most vital thing was 'to understand the motives of students' misbehaviour'. She rejected frequent punishment.

Jenny's personal theory for teaching was 'reasoning'. "*Reasoning with myself and with my students is my personal theory*," she admitted. She believed that children loved teachers who reasoned rather than those who punished students. She advised teachers to tell children the reasons behind school regulation. She believed in children. She advocated teachers to analyze situations or problems with children because she believed that children could be rational. This humanistic philosophy is child-centered by nature.

Furthermore, it was most exciting to find out that Jenny was able to breakthrough the misconception held by the other student teachers that writing lesson plans is the most important task for 'survival' during teaching practice. Right before the beginning of teaching practice, Jenny had already noted that 'achieving satisfactory learning outcome' is the most important and the most significant task that any teacher should work hard for. She proclaimed,

"We work hard so that we could enable our students to learn best. Otherwise, teaching is meaningless."

(Interview 1a)

Jenny was convinced that a teacher should try her best and be flexible enough in order to attain this educational objective.

It seems that Jenny has proved and consolidated her perception about teaching during teaching practice. Jenny became increasingly fond of teaching during the PTP. The teaching practice confirmed her belief that 'teaching is a work of conscience'. She further enriched this belief by claiming that teaching is 'a work of spirit'. For her, a teacher should never give up but continue to work for the sake of her children. Confronting all the difficulties posed by the society, a teacher should be 'a brave soldier'.

Her humanistic view of teaching children was experimented on and evaluated during teaching practice. She modified her personal theory for teaching by supplementing the idea that although a teacher should respect children's rationality, she should see that children, especially those in lower primary, need clearer instructions and concrete input of right and acceptable behaviour. Jenny said from her experience,

"Although children like to express their reasons, they hope to learn what is right and what is wrong from an adult,"

(Interview 1b)

She added that moral education advocated by western countries is inadequate for Hong Kong children. A more directive type of moral teaching is needed for primary students. Jenny appreciates Chinese virtues such as 'politeness' and 'righteousness'. Through actual action and reflection during teaching practice, she noticed that the modern way of conducting moral teaching such as 'value clarification' should be implemented by teacher's clearer instruction and more positive experience sharing. She queried if the difference is a question of 'culture'.

It appears that Jenny's conviction towards teaching was verified in a more practical way during teaching practice. In order to attain the objective of 'achieving satisfactory learning outcome', Jenny tried various kinds of teaching methods during teaching practice. She most appreciated the discovery method as an effective teaching strategy for primary children. Jenny said proudly,

"A student would find learning significant if his knowledge was built up by himself,"

(Interview 1b)

Still, she found that the expository method, in certain circumstances, was also a relevant alternative for children of lower learning ability.

Prior to the teaching practice, Yee gave brief and short answers when asked about her meaning of 'teaching'. It was quite apparent that her perception of teaching was not well developed. For Yee, 'teaching' was 'to teach students knowledge'. *"Teaching is to teach. Learning is to receive,"* she said promptly (Interview 1a). Without thinking carefully, she replied briefly about her own ideas of teaching. Her most important strategy and principle for primary teaching were 'to be patient and kind'. When asked about her personal theory for teaching, she confessed that she had not yet developed her own theory.

It was obvious that Yee developed more slowly than her groupmates. After PTP, she said that her most important strategy or principle in teaching primary children was being 'knowledgeable', 'to show concern and care', and to 'manage class discipline before teaching' (Interview 1b).

Yee was hardly able to develop a personal theory by herself after PTP. *"As instructed by the tutor after supervision, the belief that 'teaching means being concerned about students' learning outcome' could be accepted as my personal theory,"* she said (Interview 1b).

Table 5.17 summarised the development of personal theories for the six student teachers.

(Table 5.17) Pre-PTP and post-PTP personal theories of the six student teacher

Student Teachers	pre-PTP Personal Theories	post-PTP Personal Theories
Yetta	no ideas	- moral education becomes her personal educational target in teaching children
Ling	no clear ideas	- patience and love
Wong	- concern and care; - close relationship between teacher and students	- authority and status of the teacher before students should be firstly established beforehand
Kin	physical punishment	- respect and trust; - abandon formal schooling
Jenny	- humanistic philosophy; - children's rationality be emphasized for moral training; - child-centered belief	- Chinese morality is appreciated for moral training; - more 'directive type' of moral teaching is needed for H.K. children (the impact of 'culture')
Yee	no ideas	- concern about students' learning outcome (developed under tutor's guidance)

It was encouraging to find that most of the six student teachers have grown professionally. This was most obvious with Yetta, Ling, Wong, Kin and Jenny. There was only one particular case, Yee who showed little advancement. This might imply, as earlier research findings have said, that students' prerequisite beliefs and attitudes towards teaching were determinative (Calderhead, 1992; Zeichner et al.,1987; Zeichner and Grant, 1981; Argyris & Schon, 1976).

For the case of Kin, Jenny and Yee, it seems obvious that 'individual difference' exerts powerful influence upon the growth in professional quality of different student teacher. Jenny had polished her

already well-drawn personal theory after PTP and had become more professionally mature. Kin modified his imperious pre-PTP personal theory and developed a humanistic personal theory after the programme. Compared with Kin, Yee, with her weak and passive personality, poor adaptability and low motivation towards teaching, showed little improvement. She showed the lowest level of professional maturity. She framed her personal theory under the guidance of her supervisor.

This might confirm the theory of some earlier researchers. The discrepancy between Yee and Jenny (or Kin) confirmed Zeichner's (1984 and 1987) findings that differences in the assumptions held by the student teachers before the PTP greatly influenced their development of a personal theory; and that a reflective teacher education program could not change student teachers but could enable them to clarify and elaborate their own personal perspectives. Kin's case strongly illustrates this phenomenon. Kin's development was indicative of his strong character, ambitious resolution and innovative ideas towards teaching. Switching from a preconception of 'physical punishment' to a 'non-formal schooling' proposition revealed his own perspectives in education. Jenny's and Wong's cases also demonstrated such a phenomenon -- these two humanistic advocates perfected their child-centred proposal after PTP.

From this, the researcher further confirmed that the six student teachers could be classified into two categories: those who possessed beliefs, values, attitudes and emotions that favor the act of reflection; and those who do not. Jenny, Wong, Yetta, Ling and Kin belonged to the first type while Yee belonged to the second type. In LaBoskey's terminology(1993), Jenny, and her group belonged to the 'Alert Novice' while Yee belonged to the 'Common-sense Thinkers' group.

5. Becoming a 'reflective practitioner'

It was quite stimulating to find that most of the subjects showed potential in becoming reflective practitioners. They gradually developed reflective qualities such as inquiry-oriented, open-mindedness, wholeheartedness and responsibility. The following are two most outstanding examples from the post-PTP interview.

Ling was the first noticeable example.

Ling's reflective outlook was clearly shown when she said, *"Teachers should be open-minded enough to correct, adapt and change for the benefit of students."* It was quite obvious that Ling had established herself as a 'reflective practitioner' as she claimed,

"We could not routinely finish our job, teach all textbook content....Teachers have not yet fulfilled their responsibility without sincere consideration of their students' learning needs."
(Interview II)

She explained that she experimented, reflected and consolidated the concept of 'student-centered' learning taught in College through actual teaching experience and constant reflection during teaching practice. Ling again showed her advancement as an open-minded 'reflective practitioner' when she said,

"Children are honest and direct. If they don't understand what you are trying to teach, they cannot follow your instruction. You should only admit failure and try again patiently."
(Interview 1b)

Ling has developed another valuable professional quality---- 'responsibility'. She said that student teachers should not take for granted that the theory taught in College was inclusive. They should take the responsibility themselves to develop a personal theory towards teaching.

College theories could act as 'back-up' that *"should be followed by self-implementation, trial, adjustment and reflection."* (Interview II)

Facing an uncertain future, Ling speculated that she would modify her philosophy towards teaching. When asked if she had confidence to face the changes, in the teaching environment for example, Ling proclaimed that *"the preparation for change is necessary for every teacher. This is a must if what I want to do or change is for the sake of my students."* (Interview II)

Wong was the second outstanding example.

"A teacher should be willing to learn....She must not view teaching as a job that can earn salary. She should be willing to reflect and improve." (Interview II) From this, the researcher noticed Wong's potential as a lifelong 'reflective practitioner'. This is further verified by Wong's 'wholeheartedness' as she said, *"As a teacher, I should be sincere and try to be concerned about every child no matter with their achievement or attitude (Interview 1b)."* Wong is willing to treat a class not as a group but as thirty-five different 'individuals' who have different needs and characters. Wong took action as she said. During teaching practice, she experimented with various ways to show this concern by approaching children during recess time, for example:

Wong further clarified her personal theory for teaching. She said that a teacher should 'bear the responsibility to seek for professional knowledge or to develop a suitable professional attitude'. She emphasized that this is the 'responsibility' of oneself.

"One has to have the intention to improve, then try to read more, study more by oneself in order to grow. One should feel that one is inadequate...to evaluate oneself continuously; and then seek ways for empowerment and improvement."

(Interview II)

Wong's reflective teaching quality is further shown as a reflective practitioner should possess the quality of 'wholeheartedness', 'responsibility' as well as 'open-mindedness'.

6. Willingness to become a 'Student of Teaching' as a lifelong career orientation

There is evidence to show that the six student teachers did internalize the strategy of reflective thinking and have established the habit of inquiry as a lifelong career orientation. All of them said that their change in perception of teaching and personal theory after PTP was the result of experience as well as reflection during teaching practice. They proclaimed that they would retain reflection as a way of learning throughout their career:

Ling spelled out that teaching should be *"love, positive thinking and attitude, open-mindedness and patience....never give up...Be eager for improvement. Develop farsightedness, never be busy only with 'routine work'."*(Interview II) Ling implied that these reflective qualities would be useful for lifelong professional growth. Obviously Ling was sincerely willing to be a reflective teacher, a student of teaching (Cruickshank, 1987) for her whole teaching life. Ling concluded, *"That would be useful even for my whole teaching life."*(Interview II)

Yetta felt the importance of thinking and reflection, not only to teaching, but to personal life. It was most delightful to find that Yetta has tried to incorporate the element of 'reflection' into her own moral education for children. She revealed in her interview that she taught some religious stories with her primary six classes. In the lesson she asked them to write down some reflections on a worksheet about their attitudes towards friendship. The practice was followed by discussion. *"I found that as I reflected, this above idea came to me; then I tried it out on my*

children."(Interview II) It seems that she felt it was her mission to protect her children against the pervasive influence of mass media by leading them to *"take a positive role to reflect"* by taking opportunities to think and reflect about their moral conduct.

Wong also emphasized her wish to become a lifelong student of teaching when she said, *"The PTP program has confirmed my choice to become a good reflective teacher. I find that I'm going to devote my life to the teaching profession"*.(Interview II)

Jenny was eager to confirm that she was willing to be a reflective teacher in her future teaching career. *"Teach without reflection seems lifeless. I think a reflective teacher would be able to maintain a lifelong enthusiasm for her profession,"* she concluded (Interview II).

Kin, was a bit arrogant but he revealed his belief that reflection was a valuable lifelong way of teaching when he said, *"Theories taught in College is useless and silly, the only thing a good teacher should do is to reflect constantly and then develop, refine and redevelop personal philosophy for teaching that he thinks most suitable to himself."*(Interview 1b)

Yee's attitude towards lifelong reflection was not so positive. *"To a certain extent I feel unsure if I'm suited to a teaching career,"*(Interview Ib) hence she felt unsure about her own direction towards life.

It was noticeable that most of the six subjects had adopted the idea of 'student of teaching' as a lifelong career orientation after PTP. The only deviant case is Yee. This might be attributed to the 'individual difference' among the student teachers. Since her orientation and attitude towards teaching as her choice of profession remains sterile, it was understandable to see that her response was not positive. This again confirmed the findings of Zeichner (1987). He indicates that student teaching did not result in "a homogenization of teacher perspectives". Student teachers came into the experience with

different teaching perspectives, and these significant differences remained at the end of the semester. From Yee, the researcher observed the powerful effect of her personal preconceptions. Some other kinds of attitudes and emotions might be affecting her orientation towards teaching. Her lack of self-confidence was seen in her rather poor teaching performance, unsatisfactory classroom management, post-clinical supervision interviews and the post-PTP interview. Such a serious deficiency might be an overwhelming factor that retained her reflectivity as well as personal growth.

Yet findings show that most of the six subjects adopted the idea of 'student of teaching' as a lifelong career orientation after PTP. This subsequently demonstrated their interest in reflection on teaching, as opposed to merely performing routines in the classroom. This is one of the most stimulating outcome of the PTP program.

7. Conclusion

In previous sections, the researcher analysed what was really happening in the PTP programme. To what extent were the programme objectives attained? The researcher would use the following concluding remarks to summarize the consequences and effects of the programme:

Findings indicate that the six student teachers under study had matured professionally to a certain degree after the PTP programme. According to the original programme plan, they had grown in self-understanding and self-awareness. By practising the various components in PTP, they became conscious of their personal strengths and weaknesses in teaching. Kin knew that he had to work hard to find the most effective method for managing disciplinary problems, Wong was informed by self-reflection that she had to enrich her content

knowledge. Yee discovered that she had to improve her method of engaging student participation.

In one way or another the PTP was helpful to the six student teachers. They were enlightened about their own teaching character and style as well as personal philosophy in teaching. Some of them confirmed and reinforced their personal beliefs towards teaching while some of them developed clearer and more concrete personal meaning from their teaching and learning experiences that gave them directions for their future careers.

The personal theory on teaching and learning that the six student teachers developed at this preliminary stage might need further experimentation and refinement. The cycle of reflection should continue to function throughout their entire teaching career. They seemed to accept this important outcome. Actually, most of them showed a clear interest in reflecting on teaching, as opposed to merely performing as teachers. This was shown by simple statistics as well as interview data. Most of the student teachers indicated that they would adopt reflection as a lifelong way of teaching. The researcher found this outcome stimulating.

Apart from the personal theory, the PTP helped the student teachers to develop reflective thinking. Findings from simple frequency tables and various reflective instruments such as self-evaluation reports demonstrated that they were able to practise the key thinking processes in critical reflection. However, it should be made clear that most of them, except Kin and Wong, were only able to exercise the first three key practicum behaviours only, they were:

1. identify a (teaching and learning) problem;
2. formulate ways for improvement; and

3. experiment with ways for improvement.

For many times, they could not experiment with the formulated ways for improvement. Nor did they show their abilities to:

4. discover the consequences and implications of various solutions;
5. examine the intended and unintended consequences;
6. evaluate the solution, and
7. reframe the solution.

This implies that the PTP was weak in enhancing student teachers' reflective quality to more complicated conceptual levels. Notice that variables (4) to (7) above represent willingness and abilities to analyze a problem from multiple perspectives and use new evidence to reassess professional judgment. This quality of reflection would be most valuable for professionalization of the six student teachers. A possible reason for this deficiency might be that the PTP period was too short. In the next section the researcher analyses the influence of context.

Reflective content is another significant aspect of reflective thinking. Findings from this study disclosed the kinds of reflective content of different student teachers during the process of reflection. Almost all the student teachers reflected from a cognitive approach about some common technical issues such as classroom management and teaching skills. This approach was adopted right at the beginning of teaching practice. This could be attributed to their search for survival at that critical moment. They were eager to reflect as instrumental mediation of action. Theories learned in the College acted as a powerful source of knowledge that was used to direct or control teaching practices.

Starting from the second week, individual discretion could be observed. Certain student teachers were capable of widening not only their outlook but also their perspective of reflection. Yetta was one of the examples. Her level of reflection developed from an occupation with survival, to procedural strategies and then to critical pedagogy. Her purpose for reflection progressed from purely instrumental to deliberative, then to transformative. Yetta reconstructed her experience to a new understanding of herself as a teacher. She believed that a teacher should bear the responsibility for moral teaching. Ling was another example. She reflected from narrative and critical approach after PTP. She reflected narratively as she had developed her own 'appreciation system' for teaching lower primary children. She reflected critically about the unstable political and teaching environment in the future. Likewise, Jenny, Kin and Wong all showed a satisfactory degree of improvement in reflectivity during the PTP.

Furthermore, it is quite stimulating that most of the subjects showed potential in becoming reflective practitioners after the PTP. Reflective qualities, as Dewey mentioned, such as inquiry-oriented, open-mindedness, wholeheartedness and responsibility gradually developed in their mind.

Hence, it was quite encouraging to find that most of the six subjects had grown professionally. This was most obvious with Yetta, Ling, Wong, Kin and Jenny. There was only one particular case, Yee who showed little advancement. This case bears out earlier research findings (Argyris & Schon, 1976; Calderhead, 1992; Zeichner et al., 1987; Zeichner & Grant, 1981) which stated that students' prerequisite beliefs and attitudes towards teaching are determinative.

Yee remained 'sterile' after the PTP program. This might confirm the theory of some earlier researchers. The discrepancy between Yee

and Jenny might further confirm Zeichner's (1984 and 1987) study findings that individual differences in student teachers' previous assumptions are very influential; and that reflective teacher education programs might not change student teachers but could enable them to clarify and elaborate their own personal perspectives. Kin's case also illustrates this phenomenon. Kin's development reflects his strong character, ambitious resolution and innovative ideas towards teaching.

Although student teachers' prerequisite qualities and pre-training influences are influential, the researcher would not totally agree with Zeichner and Grant's explanation that teacher education programs are 'low-impact enterprise' which have little effect in changing student teachers' previous assumptions established from their pre-training influences. Evidence from the study showed that some cases who held adverse beliefs towards teaching and reflective practices changed during the teaching practice: Kin actually became a keen reflective practitioner during PTP. He launched into the various components eagerly and developed a brilliant personal theory. Even though Yee's growth was slower and was comparatively minor, we could see that she also acquired some kind of personal meaning in her chosen career.

The researcher would rather accept the positive suggestion of Calderhead (1992) who claims that 'individual differences' should be taken into account when developing any teacher education program to foster reflective thinking of student teachers. It is obvious that teacher education cannot change student teachers but could help them to clarify and elaborate their own personal perspectives. Greater self-knowledge of the personal theory of teaching could enable student teachers to compare and contrast theirs with public theories learnt in College or other institutes of teacher education. The consequence would enable individual student teachers to acquire theories of teaching from

reflection in their own way, according to their own style and at their own pace.

In this study it was clear that each student teacher adopted his own personal philosophy of teaching: Yetta advocated moral education; Jenny's humanistic child-oriented belief coincides with Kin's somewhat grand and ambitious ideal. Even Yee developed certain kinds of philosophy. There is no need to compare their achievements, what they said was truly their own thoughts and feelings. To a certain degree the PTP was successful in helping them to develop new individual insight and professional thinking towards teaching and learning. It could be concluded that student teachers with different beliefs and perceptions could be guided to develop reflective thinking. All of them were able to extract personal meaning from their teaching and learning.

Once again the researcher has to emphasize that this outcome was the consequence of engaging student teachers at a personal level. By various reflective processes such as self evaluation, clinical supervision as well as personal interviews, student teachers were able to connect personal thought with public knowledge learnt in College.

III. Influence of Context (Quality of the Programme)

It has been reported in previous sections that the research outcome showed that the PTP programme had attained its objectives to some degree. The researcher found that the programme had been fairly successful in helping the six student teachers to enhance the quality and content of reflection. Moreover, though all student teachers were able to develop personal theories, there seemed to be room for improvement in this respect. There were certain kinds of hindrance that interfered with these student teachers from fully developing their potential to reflect. Then, what were the factors, if any, that influenced individual student teachers' implementing the program's reflective propositions?

The various types of data collected in the study, including lesson for analysis observation reports, self-evaluation reports and peer observation records written by student teachers, transcription of Interview (I), teacher training syllabus, relevant internal minutes and documents in the college of education under study, were analysed to answer this question. Moreover, information from "casual talks" with colleagues in College was also used to supplement the analysis.

The defects of the design of the PTP program was the first influential factor. In the programme, student teachers were asked to reflect on questions like :Was the class under control? Am I conducting classroom discussion fluently? Was my presentation systematic and clear? The scope was narrowed to merely technical questions. Student teachers were not encouraged to question deeper issues such as the value of the existing curriculum or was there anything wrong with the existing education system.

To verify this viewpoint, let the researcher briefly analyse the effects of the four main components of the programme. They were: (1) lesson for analysis; (2) peer observation; (3) self-evaluation and (4) clinical supervision.

1. Lesson for analysis

A lesson for analysis was the first component of the PTP program that student teachers had to attend before teaching practice commenced. After observing a demonstration lesson, student teachers were required to complete an observation report form.

The purpose of this report was to guide student teachers to study a demonstration lesson systematically and analytically. Lessons of various subjects were prepared by College tutors and novice teachers. These lessons were usually well-prepared and well-planned. The observation reports completed by the student teachers were designed so as to encourage self-evaluation and self-reflection. The practice was supposed to be of value to student teachers during their own teaching practice. However, during record analyses of observation reports written by the six student teachers, the researcher found that these original objectives were only partly achieved.

Observation reports written by the student teachers were general comments with little in-depth analytical reflection as shown by Ling's report during her evaluation of an Art and Design demonstrated lesson (Table 5.21). Actually, these student teachers had experienced many tryout lessons in College training before this practice session. They had undergone a great deal of simulated teaching experience in College and hence should have made more insightful and in-depth comments for

these demonstration lessons. However, the reports they wrote could not show this.

(Table 5.21) Lesson Analysis observation report -- Ling's

Ling (28 April)		
L.A. / Social Studies		
<i>The Teacher:</i>		
<i>Good points-</i>	<i>voice & speech 'adequate'</i>	<i>Weak points- Nil</i>
	<i>alertness good</i>	
	<i>manner & attitude fine</i>	
<i>Preparation:</i>		
<i>Good points-</i>	<i>planning 'systematic & logical'</i>	<i>Weak points- Nil</i>
	<i>Teaching aids well-prepared</i>	
<i>Teacher's performance:</i>		
<i>Good points-</i>	<i>effective use of teaching aids</i>	<i>Weak points- Nil</i>
	<i>interesting 'motivation'</i>	
	<i>fine 'consolidation'</i>	
<i>Management:</i>		
<i>Good points-</i>	<i>class discipline good</i>	<i>Weak points- Nil</i>
	<i>learning environment fine</i>	
	<i>students active</i>	
	<i>Teacher-pupil communication good</i>	

Comments written by student teachers usually were positive ones with little or no negative criticism (see Table 5.21). This phenomenon was neither strange nor surprising since all demonstration lessons were 'well-prepared perfect' lessons which were designed carefully by tutors and demonstrated by novice teachers.

Moreover, evaluation feedback written by the student teachers was similar. This could be easily observed by comparing the reports of different students. For example, Ling's report of a Social Studies lesson is similar to that of Kin's report(see Table 5.21 and Table 5.22).

(Table 5.22) Lesson for Analysis observation report -- Kin

Kin (28 April) L.A./ Social Studies		
<i>The Teacher:</i>		
<i>Good points- clear voice and adequate speech</i>		<i>weak points- speech not fluent enough</i>
<i>alertness good</i>		
<i>manner & attitude fine</i>		
<i>Preparation:</i>		
<i>Good points-planning 'systematic & logical'</i>		<i>Weak points- Nil</i>
<i>Teaching aids well-prepared</i>		
<i>Teacher's performance:</i>		
<i>Good points-effective use of teaching aids</i>		<i>Weak points- consolidation too easy</i>
<i>relevant 'motivation'</i>		
<i>logical guidance</i>		
<i>Management:</i>		
<i>Good points- class discipline good</i>		<i>Weak points-learning environment not good enough</i>

Furthermore, similarity existed also among different subject lessons. For example, Kin's written comments of two subject lessons -- Physical Education and English, showed no difference at all.

Reading carefully the content of evaluation records, the researcher found that the student teachers usually reflected with cognitive approach, focusing plainly on reflection of teaching skills, strategies and methods observed in the demonstration lessons. These teaching strategies such as General Methodology (Core curriculum Areas) and subject teaching methodology (various Elective subjects) were learnt during course work in College. We could easily observe the following 'common terminology' used by student teachers in their Lesson Analysis Observation reports:

The teacher:
speech, voice, attitude, manner

Preparation:
teaching aids, lesson planning

Teacher's performance:
motivation, development, consolidation,
verbal and non-verbal communication,
individual help, individual difference,
teacher-pupil relationship,
learning activities,
blackboard arrangement,
instruction and guidance,
systematic presentation

Management:
classroom atmosphere,
teacher-pupil interaction,
classroom discipline,
pupil participation,
learning environment,
student behaviour.

These usage of common terminology seemed clearly consolidated or reinforced in the 'Observation Report Form'. The design of the report form (Table 5.23) provided guidance for student teachers to write down comments. This guidance limited the content and quality of student teachers' reflection to technical terminology:

(Table 5.23) Observation Report Form

Good points	Weak points
A. The teacher: manner & attitude, voice & speech	, alertness
B. Preparation: lesson plan & aids prepared	
C. Teacher's performance: set/ motivation,	use of verbal & non-verbal communication, use of aids & blackboard, development & consolidation, individual help/support to pps.
D. Management: teacher-pupil interaction,	classroom behaviour, safety/class routine, learning atmosphere

Student teachers rarely wrote down suggestions for improvement in the column 'other suggestions: alternative approaches' provided at the end of the record form. Nor did they write any additional points gathered at the 'discussion session'.

The student teachers also spoke about their discontentment during Interview (I) with this reflective exercise, for example:

Kin: *Meaningless. Because student teachers are unwilling to observe, many try to run away... You can see that the evaluation questions set in the observation forms were the same for each L.A. lessons (i.e. Lessons for analysis). That seemed careless and irrelevant.*

Yee: *I could only evaluate impersonally by following the guidelines set in the evaluation form.*

Jenny: *As you see in those observation forms our written reflection for L.A. lessons are similar. That's because the L.A. are perfect lessons prepared by lecturers and bright novice teachers.*

Yetta: *It's boring. The questions set in the form are too restrictive. I would prefer blank forms with only a few questions.*

The only function these lessons could serve is to show student teachers how to conduct a good lesson:

Ling: *Lessons for analyses usually are too 'grand'! Certainly we would not follow exactly the way 'model teacher' prepares and conducts a lesson. I would learn the method of teaching from these L.A...*

Yet, this function could be another obstacle to professional growth, as Wong said,

Wong: *To a certain extent it sets a kind of 'limit' for us when we plan our own lesson--it seems that we have to follow its mode.*

Hence, it was obvious that Lesson for Analysis was not able to help student teachers to identify and subject their belief and actions to inspection and evaluation; nor could it direct student teachers to formulate ways for improvement. Least of all it could hardly help student teachers to grow in self-understanding and self-awareness. Neither would it enrich the content of reflection of the student teachers.

This is due to the fact that the design of this component in many aspects limited the reflection of student teachers. Demonstration of 'perfect lessons' could only set a mode for student teachers to follow in their planning and designing of lessons. The observation form was designed in such a way that questions set in it limited to reflective level of student teachers. The lack of follow-up discussion and compulsory observation of all lessons also reduced their effectiveness.

2. Peer Observation

The student teachers showed evidence of interest in reflecting carefully on teaching by peer observation because they thought that it could help self-reflection by observing peer teaching in a natural and comfortable way. They said in interview (I),

Ling: *I very much appreciate this practice. We observed, discussed and gave advice to each other for improvement.*

Wong: *I got a lot of inspiration when I observed peer teaching.*

Yetta: *I found it useful to observe other people's failures and success.*

However, by careful inspection of the Peer Observation Forms completed by student teachers, the researcher identified certain tangible patterns which are summarized in Table 5.24.

(Table 5.24)

Summary of Peer observation reports of the six student teachers

Observer	Teacher	Date of *P.O.	Subject	Key Content of comments and reflection suggested
Kin	Jenny Ling Yetta	28/4/94 3/5/94 6/5/94	Chinese, Art & Design, Music	Learning activities (group work, questioning, story-telling, singing) Blackboard usage Learning atmosphere Teacher's guidance and instruction Elicitation techniques Timing Teaching aids Teaching objectives Teacher-pupil relationship Classroom discipline
Ling	Yetta Yee Kin	18/4/94 23/4/94 4/5/94	Social Studies	Learning guidance Role play as a learning activity Discussion as a learning activity Use of pictures as teaching aids Using worksheets as teaching aids Preparation of wordcards as teaching aids Classroom discipline
Yee	Ling Yetta	14/4/94 9/5/94	Maths, Chinese	Managing students' learning procedures Discussion as as a learning activity Caring about students' individual difference Questioning skill Using various elicitation techniques(teaching methods) Learning atmosphere
Jenny	Yetta Kin	14/4/94 18/4/94 19/4/94 11/5/94	Social Studies, Chinese	Teacher's voice, speech, pronunciation Teacher's content knowledge Teacher's verbal and non-verbal communication skills Questioning skill Skill of managing discipline in classroom Teacher's instruction and guidance Timing Use of teaching aids (wordcards) Organization of teaching activities (e.g. classroom discussion, presentation) Individual help provided for students
Wong	Jenny Yee	25/3/94 11/4/94 19/4/94	Science, Social Studies, Chinese	Experimentation as a teaching activity Classroom discipline and teacher's managing skills Teacher's voice, speech and non-verbal gesture Teacher's explanation skills Teacher's subject content knowledge Blackboard writing and blackboard arrangement Teacher's guidance and instruction

Yetta	Jenny	14/4/94	Health	Blackboard arrangement
	Ling	26/4/94	Educate	Learning atmosphere
	Kin	5/5/94	-on,	Teacher's voice, speech and instructional delivery
	Yee		Social studies, Maths.	Teacher's non-verbal communication techniques
				Teacher's alertness
				Teacher's concern of student needs
				Teacher's pedagogical content knowledge
				Teacher-pupil relationship

*P.O. -- Peer Observation

The categories set out in the above table showed that the content of reflection fell mainly into the traditions of 'social efficiency version' (Zeichner, 1991) which means that the student teachers focused upon evaluating teaching strategies and practical issues in classroom teaching. Certainly this PTP component enabled them to analyze, discuss, evaluate teaching practice and could thus adopt a more analytic approach towards teaching. Yet such format of the Peer Observation Form limited the student teachers' reflection to a technical level. Consequently, the students' reflection fell mainly into the five areas proposed by the Peer Observation Form (A) to (E); viz. 'learning activities', 'teacher's voice, speech, intonation, communication skills', 'teaching aids', 'blackboard usage', 'teacher-pupil relationship', 'teacher's elicitation and instruction'.

The student teachers, too, felt that it was undesirable to limit observation to the five areas. "*Lesson observation should be holistic*". They felt that the design "*limits the focus of observation to certain aspects only*". Their unfavourable opinions towards the design of its format were clear even from Interview I. The followings are two examples:

Yetta: *The questions set in the peer observation form are too limiting. I don't like to limit my focus of observation to certain aspects only. An observation form with a more open format would be adequate.*

Jenny: *Its design is bad because it asks us to observe and criticise a lesson from one perspective at a time. I found that I could not do so. Teaching should be viewed as one whole picture.*

3. Self-evaluation

The next component of self-evaluation did, to some degree, attained the objectives of the PTP program. The student teachers appreciated the practice. They said in Interview(II):

Wong: *I think that the questions set in the self-evaluation did guide us to analyse our lessons. It was most useful in that it asked us to think of ways to improve our next lesson. This forces me to reflect and improve.*

Ling: *Self-evaluation is good in that it forces me to look back into my lessons and reflect for improvement.*

Yetta: *It forces me to think of ways of improving my lessons.*

Jenny: *It's helpful if we try to reflect upon our teaching behaviours for every lesson and search for ways to improve our next lesson. We could grow professionally in this way.*

Kin: *It could guide us to analyse the lessons we conduct and stimulates us to improve and reflect on our work.*

The self-evaluation exercise has potential to promote reflective thinking in student teachers. This was also acknowledged by most of the six student teachers. It involved student teachers in writing and talking about their own teaching. It could be an illuminating process whereby student teachers develop a sense of responsibility as learners as well as teachers.

Nevertheless, this practicum exercise was still not effective enough. As indicated in the self-evaluation reports, the student teachers could identify problems in their lessons. Their problems were mostly 'classroom management', 'teaching methods' and 'subject content knowledge'. They were willing and able to formulate methods of improvement, for example, 'change my style of classroom management', 'provide students with individual guidance', 'improve the procedures of learning activities'. However, the student teachers seemed less able to discover the consequences and implication of various solutions, to examine the intended and unintended consequences and to evaluate the solutions. This might partly be the result of the constraints of the evaluation form. The format of the evaluation forms is shown on Table 5.25.

Table 5.25 Questions asked in self-evaluation form

<p>Answer the following....</p> <ol style="list-style-type: none"> 1. Do you think the lesson was successful? Why? 2. What, if anything, would you change about the lesson? Why? 3. What, if any, unexpected learning outcomes did you find from this lesson? What would you do in the following lessons? 4. Can you think of another way you might have taught this lesson? 5. What did you find the most interesting and rewarding in this lesson? What would you do in the following lessons? 6. What did you find the most difficult and challenging in this lesson? What would you do in the following lessons?
--

The form asked overlapping questions that limited the students' reflection. There was no device to encourage or facilitate the reflective cycle. The quality and level of reflection would thus be limited. Furthermore, the self-evaluation report form was so designed that student teachers were confined to another set of mechanical routine. Student teachers had discovered this problem and pointed it out in Interview (II):

- Jenny: *I think the questions set in the self-evaluation form are confining. They would limit our reflective thinking. We would feel more free to evaluate on a blank format. We could evaluate ourselves in various perspectives when we are allowed to write freely.*
- Yetta: *It becomes more and more boring. I hate the questions set in self-evaluation form. I'm tired of answering the same set of boring questions every lesson.*
- Wong: *I feel that the questions are overlapping.*
- Yee: *I don't like the form; it is like a test paper. I have to answer the same questions in this 'test paper' after each of my lesson. Furthermore the questions are badly set. I prefer an open format where I can write freely for self-evaluation.*

They protested that the practice seemed like homework or a test which asked the same questions every time. They had to reflect at the technical level on teaching performance and learning outcomes. They had no opportunity to reflect at a higher level or wider perspective. The questions so set confined the student teachers' reflective content merely to a cognitive level, relying on College-learnt knowledge as the chief external authority that directed and controlled teaching behaviour and thinking. This was another inadequacy of the practice which reduced its capability to help student teachers to mature in their professional life.

4. Clinical Supervision

Clinical supervision was probably the most powerful components in the PTP program. When other reflective tools of the PTP failed, clinical supervision was successful in helping student teachers to function conceptually at a high complex level. It helped student teachers to identify problems, formulate ways for improvement, discover and examine the consequences and implications of various solutions as well as to evaluate and reframe the solution. Examples had

been shown in previous chapters. Ling, who could only reflect in the cognitive approach during whole period of teaching practice, set the most outstanding example when she showed her ability and willingness to deliberate her reflection among competing views of teaching in the clinical supervision on 9 May 94. She could also take 'context' (learning characteristics of her students) into consideration. Her experience, together with those of Yetta, Jenny and Wong, verified Grimmett's (1984) saying that clinical supervision could promote reflective thinking.

All the student teachers liked the clinical supervision; they said in interview(I),

Yetta: *I prefer this type of supervision because I would have a chance and right to spell out my own opinions.*

Ling: *Clinical supervision lets students and tutors communicate ideas on the lessons, then discuss and find out ways for improvement.*

Kin: *I prefer clinical supervision. I could talk, search and reflect. The other forms of supervision would force us to listen and accept."*

Their view was that clinical supervision helped them to reflect and find out difficulties for themselves. This kind of supervision was more comfortable; giving them a chance and right to voice their own opinions. Indeed their feelings about clinical supervision were true. Good clinical supervision allows the supervisor and students to exchange views freely and regard feedback as a source of information to be evaluated critically (Grimmett, 1984). Yet, the clinical supervision for PTP could fairly attain such objective, just as student teachers said,

Jenny: *Different supervisors had their own styles of supervision. Only two of them implemented clinical supervision.*

- Kin: *Most supervisors talked a lot, as soon as we leave the classroom. They loved to criticise us directly. Usually we have to listen passively. To survive, sometimes we could only choose to listen quietly.*
- Yetta: *Some tutors did not have enough time to discuss at any depth with me after supervision. Usually the communication was one-way.*
- Wong: *To some supervisors, we would be willing to reflect our opinions but dare not say a word to others. Tutors are our supervisors and assessors.*

It was obvious that only a few supervisors implemented clinical supervision. This might be due to the problem of time-constraint and heavy workload. In fact each tutor had to pay thirty-nine to forty-two visits during teaching practice (PTU Workload Distribution, 1993-94, SRBCE). The habit of supervision was another possible reason. Supervisors were too accustomed to the traditional style to accept a new style. Furthermore, the need to assess the teaching performance of student teachers also pressed tutors to supervise directly instead of clinically. All these problems from the context exerted a negative influence on the implementation of reflective propositions of clinical supervision.

Through an informal survey, the researcher found that most supervisors in College utilized a directive or informational type of supervision. This type of supervision would rely mainly on the expertise of supervisors as the chief source of knowledge.

Ling explained the problem of directive supervision,

In order to get more satisfactory scores during teaching practice, I have to follow the advice of supervisors. I have to plan my lessons and teach according to the expectation of different supervisors.

(Interview II)

The sole concern of directive supervision is improving student teachers' classroom instruction (Glickman, 1990). While clinical supervision is developmental with long-term benefits for student teachers, directive supervision was supervisory with short-term objectives. For this reason, the reflectivity of student teachers could hardly be promoted. With few chances to experience clinical supervision, the student teachers remained at the instrumental and technological level of reflection.

If analysed by Tom's notion of arenas of the problematic (1984), the design of the PTP program fell chiefly into the arena of 'teaching-learning process'. As reflected by student teachers' learning outcomes, their focus was mainly 'instrumental' and technological. They could scarcely had the opportunity to develop their potential to reflect at a higher level. Technical approaches have been criticised by teacher educators as narrow in scope. It was unable to lead student teachers to move towards deliberative and dialectic modes of reflection.

For future development, the PTP program should move from a strictly technical orientation to broader orientations such as educational, political and ethical. In the Feiman-Nemser (1990) loci for reflection, the content of reflection that any future reflective teacher preparation program should consider would be towards 'the academic orientation', 'the personal orientation' and 'the critical orientation'.

There was another drawback in the existing PTP programme. The programme took a somewhat 'process' approach that focused on several reflective strategies or instruments such as lesson analysis, peer observation, self-evaluation and clinical supervision. The 'content' and 'context' of reflection was neglected. As a result, we could see that the importance of 'forms' and 'tools' was so overwhelming that they tended to become 'the' goals of the programme. On the other hand, the more

important issue---the question of reflective quality and content was ignored.

The Primary Training Programme, like most inquiry-oriented teacher education programmes in other countries, had sought to prepare reflective teachers by altering specific programme components within an overall teacher education programme context which remained unchanged. This brought forth a critical problem that the programme could not attain genuine ideal reflective teacher education objectives. It was clear that the PTP was not organized well nor was it devised in a coherent and systematic manner that was consistent with and valid for improving student teachers' reflectivity. The context of reflection is very important. The teacher education curriculum in the college of education (SRBCE, 1993) was planned in form of Zeichner's (1983) 'behaviouristic paradigm'. The curriculum remained focusing upon training teachers who could carry out the prespecified competencies and principles of effective teaching. The entire effort was devoted to input teaching theories and skills for student teachers. General Methodologies, Elective subjects and Educational Technology in the college syllabus illustrate this emphasis. Without compatible and relevant support, the PTP restricted the focus of reflection to means. In doing so, the means became ends in themselves. Even the student teachers apprehended this kind of hindrance:

Wong said during interview (II),

There's hindrance from the requirements of the College. To a certain extent college training always expect us to implement certain fixed formats of teaching. You know, no one dares to change or improve on those formats.

Kin said rather ruthlessly; but with certain implication,

College knowledge is useless. In the actual classroom situation, I felt short of the necessary knowledge. I feel that

I cannot grow professionally merely by relying on college theories--they were too vague and unrealistic!

Reflection for its own sake might be unconstructive and even damaging. If the student teachers do not possess the skills, knowledge or dispositions that are essential for the partial success of the programme, the original objectives of PTP could never be achieved. The researcher speculates that the College had not fully considered this before the planning of the programme. Under such circumstances, how could the student teachers enhance their reflectivity to a critical, academic or narrative approach when the 'public knowledge' they received in college remained 'technologically oriented'?

Furthermore, the teaching practice appraisal system was not compatible with this reflective programme. According to the regulations for teaching practice supervision (Teaching Practice Supervision---Guidelines for Lecturers 1993-94, SRBCE), lecturers have to supervise each student teacher's performance and progress in teaching practice. Afterward, the supervisors must complete a 'Teaching Practice Appraisal Form' and give scores for overall appraisal. It is reasonable to require teacher educators to encourage student teachers to learn to be reflective but at the same time be concerned with assessments. As a matter of fact, a reflective teacher education programme should involve a developmental type of supervision such as clinical supervision. Glickman (1990) explained the implication behind this point rather clearly when he said,

Developmental or growth-oriented (supervision)...increases teacher's choices, stimulates teachers' thinking and encourages action.

(p. 425)

Thus one meaning of supervision as developmental is the strategic movement from persuasive to reeducative to facilitate change. The other meaning of supervision as

developmental is responding to teachers as growing, dynamic professionals.

(p. 425)

There was one more threatening disjoint existed in the context. Regular teachers and schools holding opposing dispositions would be hindrance towards the aims. The six student teachers had encountered this problem during teaching practice. Ling's feeling was:

I could not reflect freely. 'Environmental influences' inhibited me from trying a better method of teaching;

....these influences include old habits adopted by regular teachers in schools. When self-reflecting, I always see the gap that I could not conquer. Even if I want to improve, I can't do so because of certain kinds of hindrance from the practising school.

(Interview II)

Thus role of teacher educator, mentor, etc. is important and coherent effort involving all concerned should be taken to enhance any reflective training program. This may include conducting compatible inservice teacher education programme or some kinds of reeducative or persuasive activities for teachers, headmasters and parents of the serving schools.

The heavy workload of student teachers is the last problem the researcher would like to mention. Yetta and Jenny could explain this point quite clearly in Interview (II),

The present design of the PTP forces us to concentrate only on technical practice. I have little time to carry out spiritual work such as thinking and reflection.

Many times I had to hurry to write lesson plans, to prepare teaching aids and to mark children's textbooks. I feel constrained by time to do self-evaluation satisfactorily.

(interview II)

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(interview II)

Each student teacher had to teach fourteen to sixteen periods per week in both lower and upper primary classes. They had to teach elective and non-elective subjects. Each of them would be supervised by seven to nine different supervisors (Arrangements of Teaching Duties for two-year course full-time student teachers 1993-94, SRBCE). Their duties during teaching practice period included lesson planning and teaching, preparation of teaching aids, marking of textbooks and exercises, keeping various records such as Scheme of work, Weekly record of work, etc. They had to carry out other school duties such as duty during recess, participating in extracurricular activities, acting as temporary teacher for on-leave regular teachers, too. All these tedious practical duties would certainly exert pressure on these inexperienced 'teachers'. Without appropriate time allowance, how could they reflect effectively? The college could consider carefully Kin's opinions in this aspect:

If the periods for teaching practice could be reduced to ten or less, we could have more time to implement self-evaluation, or team-based reflective discussion. For student teachers who are learning to teach, reflection is more important than mere practice.

(Interview II)

5. Conclusion

In Dewey's theory, learning through experience is neither effective nor adequate for ideal professional growth in student teachers; they need to learn how to process their experiences. It is undoubtful that the PTP was able to provide sufficient opportunity for the six student teachers to learn to be reflective. Individual student teachers did bring their knowledge, theoretical principles and alternative interpretations to analyse the experience they received in the teaching practice. In fact, the six subjects also acknowledged this view :

- Yetta: *It(the PTP Programme) helped me in my professional development. The components taught me how to think....Well, I did find that as I reflected on my teaching, the ideas (personal theory) came to me; then I would try it on my children. College theories were useful during teaching practice when I was experiencing what it really means to teaching....Gradually I discovered my own philosophy of teaching.*
- Kin: *College theories are irrelevant and silly! My personal theories develop solely from my own experience and constant reflection during teaching practice.*
- Wong: *The theories learnt in College could serve as a guide for us to develop our personal principle for teaching. During teaching practice, I continually experimented with the theories reflected, verified, improved and learnt from this experience. Through this program, the College has gradually taught me to reflect, rethink and consolidate my personal philosophy of teaching..*
- Jenny: *Sometimes I feel that the theories taught in College are too theoretical. It was only through action and reflection during teaching practice that I would test the theories learnt in College...I think that PTP has helped me to form the habit of thinking, trying, reflecting and re-evaluating my own methods of teaching.*

(Interview II)

It is clear that the PTP was a good instrument to empower individual student teachers to be mindful, to make sense and to reflect. However, from the findings shown in the above sections (Ch. 4, section II), the researcher could draw a conclusion that the design of the PTP was not really appropriate for the purpose of preparing authentic reflective practitioners. It was able to stimulate student teachers to recognize a teaching dilemma, to frame solutions but it never succeeded in enlightening student teachers to experiment, to examine nor to reframe such solutions. Furthermore, it failed to enhance the range and depth of knowledge in each student's appreciation system. Schon (1983) stresses that reflective practice is grounded in the practitioner's appreciation system including such factors as repertoire of values, knowledge theories and practices. But because of basic defects in the programme design, students undergoing the PTP were unable to achieve the objectives set. Despite the fact that Liston and Zeichner (1987) stated clearly that teachers must use not only educational but also moral criteria to examine the consequences of the solutions implemented, PTP was successful only in imparting a few of the elements of the reflective process to the student teachers of the study. As regards helping the student teachers to reflect with multiple perspectives, it could hardly be said to have been successful.

CHAPTER FOUR

CONCLUSION AND RECOMMENDATIONS

Regardless of the degree of effectiveness the PTP had accomplished, it was quite an admirable attempt to help student teachers learn to be reflective in their professional life. PTP demonstrated an effort to cultivate student teachers as central agents of their own learning and knowing. The effort also introduced the concept of promoting preservice teacher's self-responsibility as learners of teaching through the reflective process. In this one attempt, it was revealed how a reflective approach helped some student teachers to identify new directions or goals for their teaching and learning. In this, the theory of reflective teaching is verified to a certain degree.

There was one special theoretical implication derived from the study. Although the PTP had many defects in its design and planning, it demonstrated how the 'individuality' of student teachers could be dealt with by reflective effort. Reflection, thus, can focus more on the individuality of the teacher than on such conceptions of reflection as proposed by Zeichner (1983) who emphasizes the need for inquiry into the contexts in which teaching takes place, and the ethical, moral and political issues that influence one's teaching. This study brought forth implications which might be in accordance with Korthagen's (1993) discussion in which he pointed out that "an integration of reflection on rational and non-rational processes" is important for teachers (p.324). The latter shared the viewpoint that reflection might not only consist of step-by-step analyses of teachers' own teaching and the contexts in which that teaching takes place; some other non-rational processes which focuses on individual 'gestalt' such as 'guided fantasies, drawings, etc.' might also be meaningful.

Moreover, the findings in this study imply that student teachers could all engage in reflection in differing degrees of thoroughness, perspectives, levels and personal meanings, all depending on the context and the teachers' individual liking or tendencies. The quality of programme was also a significant factor. From the discussion in the last sections (Chapter 3, section II), one could observe that the PTP program as a significant factor from the context had restricted the focus of the students reflection to 'means', that is, methods for achieving prespecified goals. In so doing, the means became ends in themselves. Such a focus on means was technological and fell into the behaviouristic paradigm of teacher education (Zeichner, 1983). Obviously this was not an ideal type of reflective teacher education programme. Programme designers and planners should consider the points described below for future improvement.

For any inquiry-oriented teacher education programme, the designer has to consider an important question "What should student teachers reflect about? ". The nature of the PTP programme was self-evidently limited. Its orientation was clearly technocratic and instrumental, where teaching was plainly understood as involving problem-solving objectives by applying teaching theories and techniques learnt in College. Its major concern was, without doubt, to develop teachers who were capable of carrying out the technical skills of teaching but without keen consideration of other important variables such as context, purposes, values and goals of schooling, etc. This was one of the most critical reasons why the six subjects were hardly able to reflect to a higher loci or wider dimension after participating in the programme. Technical approaches are overly narrow in scope and generally rely too much on external authority such as educational research knowledge. This contrived nature of the PTP programme might, to a certain extent, inhibit the development of teaching which is genuinely reflective. Hence, to help student teachers to become

Dewey's (1933) faithful notion of reflective teachers who can reflect with an openminded, responsible and wholehearted attitude, the researcher suggests that any teacher education programme could not depart itself from ethical, social and political dimensions, etc. Instead of restricting it to the act of teaching, student teachers should be helped to consider subject content knowledge, social issues, ethical and critical principles of teaching, educational problems, etc. That is to say, Tom's four arenas of reflective education (1985) should be included for consideration during the planning of the programme.

A careful study of the objectives of the PTP would show that they are inadequate for helping student teachers to become truly reflective. Calderhead (1993) had listed key aims which were significant for any reflective teacher education programs. The PTP might have achieved two of these aims. These were "to enable teachers to analyze, discuss, evaluate and change their own practice, adopting an analytic approach towards teaching." and "to facilitate a teacher's development of his own theories of educational practice, understanding and developing a principled basis for his own classroom work." (p.2) However, the PTP planners seemed to have skipped over other noteworthy aims; these were:

- to encourage teachers to take greater responsibility for their own professional growth;
- to empower teachers so that they may better influence future directions in education and take a more active role in educational decision-making.

The PTP retained the conventional approach that disregarded the importance of developing greater teacher autonomy, and promoting a self-initiated participation in decision-making in democratic educational affairs. If they want to promote full professional growth in

preservice teachers, planners should not neglect these important directions in future.

One of the reasons for the deficiencies in the PTP programme could be attributed to its close relationship with assessment of teaching performance for preservice teachers. To help student teachers to achieve genuine reflective thinking, an easy and free environment without pressure nor fear of assessment or backlash is essential. Only in such an environment could student teachers feel free to experiment, make mistakes, then reflect and reframe. And also, it is only in such an environment could student teachers openly communicate their personal private dilemmas and viewpoints. This was exactly what Schon (1983) pointed out. By voicing their private knowledge, student teachers could “subject their conflicts and dilemmas to productive public inquiry” (p.333).

How to bridge the gap between private knowledge and public knowledge has been a troubling issue of many planners of reflective teacher education programmes (Calderhead, 1991). They should take this meaningful question into keen consideration. Experiences of some foreign programmes, especially the elementary student teaching program at the University of Wisconsin (Zeicher & Liston, 1987) would shed some light on the subject. Certain kinds of inquiry-oriented practicum exercises are significant in this respect. The five curricular components of Wisconsin’s programme are worth considering:

1. “teaching” that focuses on instruction and classroom management, etc.;
2. “inquiry activities” such as observations, action research, curriculum studies and ethnographic studies;

3. "seminars" that focuses on analysis of teacher development, classroom actions, and educational components in the light of diverse conceptual frameworks;
4. "journals" as a vehicle for systematic reflection of teaching and self development as teachers, and as a means to communicate with the supervisor;
5. "supervisory conferences" that focus on rational analysis of classroom behaviour, of the relations between social contexts and behaviour, applying three kinds of criteria: technical, educational and ethical.

Programme planners should study these valuable experiences carefully before planning a suitable reflective teacher education programme for student teachers in Hong Kong. Remember that the context and culture in Hong Kong should be taken into account. This includes all the historical, political, social and educational characteristics of Hong Kong. The background, abilities and learning needs of our student teachers would be another of these factors. Cultural influences in various settings such as that of schools, traditional belief of college tutors, collaborating teachers or mentors could be other significant considerations.

Reflection for its own sake could be unconstructive and even negative; structural and curricular changes in teacher education institutions should accompany with reconception of teacher education. Without such vital changes in context, any reflective teacher education programme will only be superficial and ineffectual. This section has dealt with some means of curricular change. The researcher wishes to list three more crucial issues for programme planners to consider:

Firstly, there appears to be a developmental process in becoming reflective. The different levels of reflection appear to occur only over a fairly lengthy period of time. The experiences of the six subjects in this study suggest this. In the case of Ling, Yetta and Kin, they managed to enhance their personal reflectivity to a higher level over the period of teaching practice. It now appears that most of the subjects would have attained some higher degree of maturity if the PTP had extended over a longer period of school-based practice teaching. The student teachers expressed this view during Interview II:

Wong said,

If the teaching practice had been longer, I think I would have developed my reflective skill even more.

Kin said,

I think that the PTP was the most valuable experience I had in my two years of study. In those five weeks, I was able to mature more quickly than at any other time. I wish I didn't have to waste my time in College and instead used the time for a longer teaching practice.

(Interview II)

This feedback from the students is supported by such researchers as Wedman, Mahlios & Whitfield (1989) who have suggested that to develop productive reflection requires 'opportunity, time, and assistance from others'. This point should be taken into consideration by reviewers of the PTP.

Calderhead has raised another question, "Do student teachers go through a phase of developing a 'taken-for-granted' routines before they are in a position to analyze and critically evaluate them?" (1993, p.2) It would be advisable for programme designers to contemplate this question carefully before planning future reflective teacher education curriculum. The researcher recommends in the development of such a

curriculum, a probable process of growth towards reflection should be worked out for the subjects. This could be done through researches or careful studies. It would then be necessary to find out whether the student teachers possess the essential skills, attitudes and dispositions to develop reflection. The next question would be, what is a suitable starting point for the majority of the student teachers? How and where (or which level of reflection) should one start? What should be the target for reflection? Which kinds of content and context of reflection is most appropriate? And last, but not the least in importance, how does one cater for individual differences in the process of development?

Secondly, the role of mentors or change agents is important. To achieve full success in any programme it must be recognised that external factors can significantly influence the development process. Hindrance or interference from practising primary schools was a negative factor for ideal success -- this was proclaimed by some subjects. School-based practice teaching could be a positive support for ideal reflective teacher education. Therefore, to modify the existing culture of primary schools was a prerequisite to success. Then, close and understanding relationship should be maintained. It would also be necessary to organise coherent inservice teacher education programmes to refresh old concepts. To put it simply, teacher education institution should be ready to carry out measures to instill a cooperative and encourage positive backing from primary schools. Closer linkage, inservice refresher programmes on reflective teaching, collaborative training schemes might be some of the practical suggestions that could be recommended to programme designers in College.

Thirdly, the role and attitude of teacher educators also influenced the success or failure of a programme. It is their responsibility to work continuously to transform and improve teacher education. In doing this, it would be necessary to reflect on their own practices as teacher

educators, critically question themselves as well as the programmes which they teach. In order to help their students to reflect on their own work, teacher educators must first possess the characteristics of reflective practitioners which are openmindedness, responsibility and wholeheartedness.

Furthermore, from the findings of this study, the researcher would like to propose a few more recommendations for further studies in related field.

The agenda of 'individual difference' in reflective teaching has been studied in the research. Ideas of some researchers such as LaBoskey and Zeichner concerning the issue have been examined. The researcher proposes that further study be carried out to clarify the relationship between reflectivity and learning orientation, values systems and teaching effectiveness of student teachers. It is a fact that future development of reflective teacher education programmes need to be informed by a more soundly established theoretical definition of reflectivity.

The definition of reflection in preservice teacher education is quite complex. As Calderhead (1989) observes, the expressions of reflection in professional development "disguise a vast number of conceptual variation"(p.2). Hence, the researcher feels that it is appropriate as well as salient to try clarifying the concept in this concluding paragraph. According to Dewey (1910), reflection is:

the active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the future conclusions to which it tends.

(p.6)

According to Dewey's definition, one must never accept suggestions uncritically and must always retain the attitude of inquiry. Preservice teachers should be encouraged to become "thoughtful and alert students of education" (1904, p.151). Unless a teacher is reflective, he may survive in the mechanics of school management, but can never grow 'as a teacher, an inspirer and director of soul-life' (Ibid.). Dewey's original definition seems to be calling to teacher educators' attention to a distinctive conceptualization which could help to empower teachers with a perspective of life-long learning orientations. Yet, most researchers or programme planners, including those of PTP, articulate reflection to be one of a 'technique'. A rethinking or redefining of the conception is a prerequisite for any successful attempts in the future.

Clearly, more and more reflective teacher education programmes are being developed. But the researcher has observed that most of them, including the PTP, lack a very thorough understanding of the original rationale behind reflective teaching. Dewey has warned that reflection should be generated from or are grounded in theories, assumptions, or research findings which are explicitly held and understood by the practitioner (Dewey, 1933). Hence, the effective development of reflective teacher education programmes is a worthwhile agenda for study to look into ways and means of producing well-designed and well-structured materials. For the successful achievement of programme objectives, it is vital for student teachers to be aware of the underlying principles and objectives of reflection before training in the skills and attitudes of reflective thinking. Enhancement of relevant knowledge and self-awareness are other possibilities. All these alternatives need clarification or verification by further research.

Searching through ERIC, 131 documents and journals regarding to the issue are recorded. The researcher has quoted some relevant ones in the thesis proposal ; here listed below are some other interesting pieces of research reports:

Baird, J.R., *et al.* (1991) *The Importance of Reflection in Improving Science Teaching and Learning.*

Bennett, C.K. (1994) *Promoting Teacher Reflection through Action Research: What Do Teachers Think?*

Beyerbach, B.A., *et al.* (1990) *Using a Computerized Concept Mapping Program to Assess Preservice Teachers' Thinking about Effective Teaching.*

Burstein, N.D., *et al.* (1989) *Preparing Teachers to Work with Culturally Diverse Students: A Teacher Education Model.*

Cruickshank, D.R., *et al.* (1993) *Improving Preservice Teacher Assessment through On-Campus Laboratory Experiences.*

Finch, M.E., *et al.* (1992) *Preparing Preservice Students for Diverse Populations.*

Herrmann, B.A., *et al.* (1993) *Restructuring a Preservice Literacy Methods Courses : Dilemmas and Lessons Learned.*

Hines, Constance V., *et al.* (1985) *Teacher Clarity and Its Relationship to Student Achievement and Satisfaction.*

Lemlech, J.K., *et al.* (1990) *Learning to Talk about Teaching : Collegiality in Clinical Teacher Education.*

Ma, L. (1992) *Discussing Teacher Induction in China and Relevant Debates in the United States with a Chinese Teacher : A Conversation with Yu Yi.*

McAllist, E.A. & Neubert, G.A. (1995) *New Teachers Helping New*

Teachers: Preservice Peer Coaching.

Ross, E.W., et al.(1986) *Practicing Critical Theory in Social Studies Preservice Education : Reconsidering the Role of Reflective Inquiry.*

Shapiro, B.L. (1991) *A Collaborative Approach to Help Novice Science Teachers Reflect on Changes in Their Construction of the Role of Science Teacher.*

Primary Training Unit

Lesson for Analysis - Observation Report

Course/Year: _____ Class observed : _____
Reg. No. _____ Subject: _____
Name: _____ Topic: _____
Team: _____ Date: _____ Time: _____

1. The purpose of this report is to guide student teachers to have a systematic and analytical study of a lesson. It would also be of value to student teachers in the self-evaluation of their performance in Teaching Practice (TP).
2. Students should observe all lessons for analysis sessions and attend the discussion sessions as scheduled. The form should be completed during the lesson observed so that student teachers can make use of the points entered for the discussion session that follows.
3. The completed form should then be submitted to the tutors in charge of the discussion sessions through their team representatives. The reports will be assessed by the team tutors concerned. Assessment results will form part of the assessment for TP Preparation.
4. The forms will be returned to students during the TP Preparation period.
5. Student teachers would analyse the lesson according to the following guidelines:
 - a. points considered good and worth others to follow in subsequent teaching.
 - b. weak points to be avoided/ improved.
 - c. other suggestions including alternative approaches.

(Form A to Form E)

Form A Teacher: Yr: Name of Observer: Yr:

School:

Class:

Date: Time:

No. of pupils:

Subject:

Lesson Objective(s):

Observation Point: TEACHING & LEARNING ACTIVITIES

<u>Were the Teaching & Learning Activities:</u>	<u>Remarks*</u>				<u>Comments#</u>
	1	2	3	4	
1) objective-related?					
2) pupil-centred?					
3) interesting?					
4) interactive?					
5) suitable?					
6) of varied forms & kinds?					

Overall comments of the lesson:NOTES:

* 1 = Not satisfactory. Try harder
2 = Alright

3 = Good
4 = Well-done

Note down examples observed to justify your remarks & make alternative suggestions, if possible.

Use the backside of the form if you need more space.

Primary Training Unit
Peer Observation Form (B)

Name of Teacher: _____ Yr: _____ Name of Observer: _____ Yr: _____
 School: _____ Class: _____
 Date: _____ Time: _____ No. of pupils: _____
 Subject: _____
 Lesson Objective(s): _____

Observation Point: TEACHING AIDS

<u>Were the</u> <u>Teaching aids:</u>	<u>Remarks*</u>				<u>Comments#</u>
	1	2	3	4	

1) appropriate?

2) effective?

3) fully-exploited?

4) well-prepared?

5) sufficient?

Overall comments of the lesson:

NOTES:

* 1 = Not satisfactory. Try harder
 2 = Alright

3 = Good
 4 = Well-done

Note down examples observed to justify your remarks & make alternative suggestions, if possible.

Use the backside of the form if you need more space.

Primary Training Unit
Peer Observation Form (C)

Name of Teacher:

Yr:

Name of Observer:

Yr:

School:

Class:

Date:

Time:

No. of pupils:

Subject:

Lesson Objective(s):

Observation Point: Classroom Management

<u>Observe & comment</u> <u>on the following:</u>	<u>Remarks*</u>				<u>Comments#</u>
	1	2	3	4	
1) Blackboard writing					
2) Blackboard arrangement					
3) Class discipline/ learning atmosphere					
4) Instructions					
5) Elicitation techniques					
6) Pace & timing					
7) Organization of activities/ different stages of the lesson					

1) Blackboard writing

2) Blackboard arrangement

3) Class discipline/
learning atmosphere

4) Instructions

5) Elicitation techniques

6) Pace & timing

7) Organization of activities/
different stages of the lesson

Primary Training Unit
Peer Observation Form (D)

Name of Teacher:

Yr:

Name of Observer:

Yr:

School:

Class:

Date:

Time:

No. of pupils:

Subject:

Lesson Objective(s):

Observation Point: Teacher's Personal Qualities

Observe & comment
on the following:

Remarks*

Comments#

1 2 3 4

1) Teacher's voice -
(Audible? Normal speed?)

2) Teacher's rapport with pupils

3) Teacher's sensitivity to
pupils' needs

4) Teacher's non-verbal
communication techniques

5) Teacher's knowledge
about the subject/topic

Overall comments of the lesson:

NOTES:

* 1 = Not satisfactory. Try harder
2 = Alright

3 = Good
4 = Well-done

Note down examples observed to justify your remarks & make
alternative suggestions, if possible.

Use the backside of the form if there is not enough space.

Primary Training Unit
Peer Observation Form (E)

Name of Teacher:

Yr:

Name of Observer:

Yr:

School:

Class:

Date:

Time:

No. of pupils:

Subject:

Lesson Objective(s):

Observation Point: Pupils' Participation

Were the pupils:

Remarks*

Comments#

1 2 3 4

1) attentive?

2) interested?

3) responsive?

4) following the lesson?

5) learning?

Overall comments of the lesson:

NOTES:

* 1 = Not Satisfactory. Try harder
2 = Alright

3 = Good

4 = Well-done

Note down examples observed to justify your remarks & make alternative suggestions, if possible.

Use the backside of the form if there is not enough space.

APPENDIX E

THE PILOT CASE STUDY REPORT

The pilot study was carried out during the school attachment week prior to the commencement of teaching practice. Four student teachers in a primary school were invited for the purpose. Feedback from these four student teachers are contributive. Much insights and lessons could be learnt:

Firstly, concerning with the student teachers' willingness to implement the PTP program, the researcher got both positive and negative feedback. The student teachers appreciate much the program orientation, but on the other hand feel constrained and lack of confident to carry out the initial objectives of the program. Preliminary study suggested that informal structural forces as well as the pressure/nature of supervision might be an influential factor. Thus, context investigation should be inaugurated into the research.

A more important implication also resulted from this pilot study. Close contact and communication with these student teachers disclose a critical factor that most probably might interfere with the findings of this research. This is the difference in beliefs, attitude and perception of teaching among the student teachers. This vital message verifies Zeichner's conception that individual difference among student teachers is an inevitable variable for any kinds of teacher training effort. Further literature review justifies the need to reframe original research questions of the study.

Thirdly, it was discovered in the 'pilot' that responses and emotions towards different components of the PTP program was different. All of the four student teachers appreciate the practise of self-evaluation and peer

observation, however, dislike the Lesson Analysis observation report exercise. This seemingly contradictory viewpoint implies the need to design the Case Study into embedded type (Yin's type 2 case study design) wherein the various components of the PTP program deserves discrete investigation as subunits for analysis. Studies of subunits surely is significant for assembling holistic analysis of the Target case program.

The four student teachers loved to have the opportunity to observe beginning teachers' demonstration, to think and to evaluate; but fairly liked to write observation report or evaluation records. This fourth findings need to be further validated in the Case Study. If similar 'pattern' appears, the reasons behind should be discussed.

The student teachers would be quite busy when teaching practice starts. They would be 'fully occupied' by various regulated tasks such as writing lesson plans, preparing teaching aids, carrying out school duties, receiving lecturers' supervision, etc. The four student teachers complained that all these routinized, technical requirement might interfere their effort and outcomes of reflection. Hence, the influence of the conceptual nature of supervision and teaching practice on effectiveness and content of reflective teacher education also merits consideration.

Finally but similarly important; the four student teachers also honestly give the opinion that instructor effect, though inevitable, could be reduced by trust and rapports developed between the researcher and the student teachers. Besides, they suggest that more satisfactory and valid outcomes would be got if purpose of the study is understood and appreciated by the student teachers under research. The researcher have truthfully achieved these suggestions.

Research Questions	Target of Study/ Source of Information	Major Research Procedure
1(a). Do student teachers give evidence of interest in reflecting carefully on teaching?	student teachers	interview (I) & (II)
1(b). Are student teachers able to identify and subject their beliefs and actions to inspection and evaluation? How, and Why?	student teachers' responses on:	record analyses of:
1(c). Are they able to formulate ways for improving teaching and learning? How, and Why?	Lesson analysis observation, self-evaluation practice, peer observation exercise and clinical supervision	Lesson analysis observation reports, self-evaluation records, peer observation record forms and pre-conference and post-conference tape-record
1(d). How far did they grow in self-understanding and self-awareness?		
1(e). To what extent are they able to extract personal meaning from their teaching and learning experiences?	student teachers	interview (I)
1(f). What kind of personal theory to teaching and learning did they develop?		
1(g). To what extent are student teachers with different beliefs and perceptions towards teaching and learning helped to develop reflective thinking?		
2. To what extent the context and other factors act on the consequences and actual effects of the programme?	context (PTP design)	interview (II) content analyses of various reflective instruments of PTP

APPENDIX G

Key self-Evaluation behaviours of the six student teachers in PTP

Key Practicum self-evaluation behaviours

(a)	identify a problem
(b)	formulate ways for improvement
(c)	experiment with ways for improvement
(d)	discover the consequences and implication of various solutions
(e)	examine the intended and unintended consequences
(f)	evaluate the solutions

(Table 1) YETTA

Key Practicum self-evaluation behaviours	week 1		week 2		week 3		week 4	
	f	content	f	content	f	content	f	content
(a)	2	1. classroom management 2. classwork	1	learning is too abstract	0	attain teaching objectives	0	attain teaching objectives
(b)	2	1. change style of classroom management 2. simpler work to be assigned	1	prepare teaching aids to assist learning	0	Nil	1	pay more attention to student response
(c)	0	Nil	1	pay afford to stimulate student participation	1	try role-play	1	learning activities
(d)	0	Nil	1	successful in enagaging student participation	1	worth trying, successful	1	activities worth using; 1. could stimulate participation; 2. enhance learning motivation
(e)	0	Nil	1	students could particpate actively and at the same time could keep quiet	0	Nil	1	a few students still do their own things
(f)	0	Nil	0	try discussion next time	1	role-play activities could engage student support	0	Nil

(e)
(f)

(Table 2) LING

Key Practicum self-evaluation behaviours	week 1		week 2		week 3	
	f	content	f	content	f	content
(a)	3	1. classroom management 2. student understanding of teaching content 3. accuracy of musical tune	1	individual difference	2	1. some students couldn't grasp the meaning of 'Monday=the second day of the week' 2. almost all students couldn't grasp the exact meaning of 'half-past' when learning "time" (Arithmetics)
(b)	3	1. change style of classroom management 2. demonstration and clearer guidance 3. piano to assist musical tuning	1	individual guidance is needed	1	1. repetition and use calendar to assist explanation 2. every students have a clock to play with so as to assist learning
(c)	1	student participation in demonstration	0	Nil	1	same
(d)	1	student likes to participate	0	Nil	1	students need clear and patient instruction

(Table 3) I

Key Practicum self-evaluation behaviours	1
(a)	2
(b)	2

(c)	0	Nil	1	1. pay afford to control classroom discipline 2. teacher increases her own sense of humor	3	1. utilize students' life experience 2. use story-telling to enhance interest to Chinese	3	same
(d)	0	Nil	1	1. successful in controlling classroom discipline 2. successful in fostering student learning atmosphere	3	1. student participates actively and eagerly 2. student interest in Chinese is enhanced by story-telling	3	successful in all three aspects
(e)	0	Nil	1	students could participate actively and at the same time could keep quiet	1	when student participate eagerly, they would be noisy	3	same as above
(f)	0	Nil	1	1. humorous classroom atmosphere could helps 2. students feel that Chinese is a boring subject, less interested to learn.	1	1. teacher should enrich her subject knowledge 2. discipline and student engagement is a dilemma- needs to consider	3	all three solutions are effective and positive classroom managment methods

(Table 4) YEE

Key Practicum self-evaluation behaviours	week 1		week 2		week 3		week 4	
	f	content	f	content	f	content	f	content
(a)	1	1. student love asking too many questions	1	1. wrong measurement aids 2. classroom disciplinary problem during activities	0	nil	1	experimentation of science is hard to manage
(b)	1	1. try to enage students in learning activities 2. let them ask questions during recess time	1	try to use positive reinforcement methods	0	Nil	1	1. try to rehearse procedure of experimentation beforehand 2. check all instruments before lesson
(c)	1	announcement of classroom regulations	0	nil	0	nil	0	not yet
(d)	0	not yet	0	nil	0	nil	0	nil
(e)	0	not yet	0	nil	0	nil	0	nil
(f)	0	not yet	0	nil	0	nil	0	Nil

(Table 5) JENNY

Key Practicum self- evaluation behaviours	week 1		week 2		week 3		week 4	
	f	content	f	content	f	content	f	content
(a)	1	1. classroom management	4	1. student pronunciation problem 2. science experimentation is hard to manage 3. timing 4. disciplinary problem during discussion 5. student sit at back didn't pay attention	0	Nil	3	1. Teacher's content knowledge is inadequate 2. students love to ask too much questions 3. students are too bright
(b)	0	Nil	2	1. to roll their tongue 2. ask student at back to answer questions	0	Nil	2	1. give students 5 minutes to ask questions related to topic taught 2. try difficult assignment next time
(c)	0	Nil	2	same	0	Nil	0	Nil
(d)	0	Nil	0	Nil	0	Nil	0	Nil
(e)	0	Nil	0	Nil	0	Nil	0	Nil
(f)	0	Nil	0	Nil	0	Nil	0	Nil

(Table 6) *Kin*

Key Practicum self-evaluation behaviours	week 1		week 2		week 3		week 4	
	f	content	f	content	f	content	f	content
(a)	2	1. classroom management 2. student cried suddenly in group discussion	0	Nil	1	over-reliance on lesson plan	1	inadequacy of teacher's content knowledge towards Chinese
(b)	2	1. announcement of regulation before group discussion 2. stop group activities until student stop crying	0	Nil	1	try not to depend too much on lesson plan	0	Nil
(c)	0	Nil	0	Nil	1	class discipline of the naughtiest class is unstable	1	feel frustrated with self-inadequacy when facing a nice class of improving learning condition
(d)	0	Nil	0	Nil	1	Is punishment or reinforcement more effective? Which principle should I choose?	0	Nil
(e)	0	Nil	0	Nil	0	Nil	0	Nil
(f)	0	Nil	0	Nil	0	Nil	0	Nil

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